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# INTERIOR DEPARTMENT AND RELATED AGENCIES APPROPRIATIONS FOR 1965

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## HEARINGS

BEFORE A

## SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS UNITED STATES SENATE

EIGHTY-EIGHTH CONGRESS

SECOND SESSION

ON

## H.R. 10433

MAKING APPROPRIATIONS FOR THE DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES FOR THE FISCAL YEAR ENDING JUNE 30, 1965, AND FOR OTHER PURPOSES

Printed for the use of the Committee on Appropriations

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## SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS

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# DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1965

WEDNESDAY, FEBRUARY 19, 1964

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, D.C.*

The subcommittee met at 10 a.m., pursuant to call, in room 1223, New Senate Office Building, Hon. Carl Hayden (chairman) presiding.
Present: Chairman Hayden, Senators Bible, McGee, and Mansfield.

## DEPARTMENT OF THE INTERIOR

### STATEMENT OF THE CHAIRMAN

Chairman HAYDEN. The subcommittee will come to order.

We are here to consider the 1965 budget estimates for the Department of Interior and related agencies. This bill includes funds for all the bureaus and agencies of the Department of the Interior, except the Bureau of Reclamation, the Southeastern Power Administration, the Southwestern Power Administration, and the Bonneville Power Administration. All of these latter agency estimates are contained in the public works appropriations bill which will be considered later this year.

In addition, this bill will include funds for the U.S. Forest Service, the Federal Coal Mine Safety Board of Review, the Commission of Fine Arts, the Division of Indian Health in the Department of Health, Education, and Welfare, the Indian Claims Commission, the National Capital Planning Commission, the National Capital Transportation Agency, the Smithsonian Institution, the National Gallery of Art, the Civil War Centennial Commission, the Corregidor-Bataan Memorial Commission, and the Virgin Islands Corporation.

### APPROPRIATIONS, 1964, AND 1965 ESTIMATES

For fiscal year 1964, $960,412,500 were appropriated for these agencies, which includes $6 million in borrowing authority and $13,486,000 in indefinite appropriations of receipts. The various bureaus and agencies now have pending supplemental 1964 estimates in the amount of $33,092,737.

For fiscal year 1965 there is requested a total appropriation of $1,020,613,000, an increase of $60,200,500 over fiscal year 1964. This sum includes $20 million in borrowing authority and $12,985,000 in indefinite appropriations of receipts.

### COMPARATIVE STATEMENTS

I will place in the record a comparative statement of the appropriation for fiscal year 1964 and the budget estimates for fiscal year

1965, and a table comparing appropriations and receipts for the Department of the Interior for fiscal years 1964 and 1965.

(The statement follows:)

*Comparative statement of the appropriations for fiscal year 1964, and the estimates for fiscal year 1965*

| Item | Appropriations, 1964 | Budget estimates, 1965 | Increase (+) or decrease (−), 1965 budget estimates compared with 1964 |
|---|---|---|---|
| TITLE I—DEPARTMENT OF THE INTERIOR | | | |
| PUBLIC LAND MANAGEMENT | | | |
| Bureau of Land Management: | | | |
| Management of lands and resources | $44,152,500 | $45,447,000 | +$1,294,500 |
| Construction | 300,000 | 1,400,000 | +1,100,000 |
| Public lands development roads and trails (liquidation of contract authorization) | 760,000 | 2,000,000 | +1,240,000 |
| Oregon and California grant lands (indefinite appropriation of receipts) | (9,000,000) | (8,250,000) | (−750,000) |
| Range improvements (indefinite appropriation of receipts) | (1,248,000) | (1,523,000) | (+275,000) |
| Total, Bureau of Land Management | 45,212,500 | 48,847,000 | +3,634,500 |
| Bureau of Indian Affairs: | | | |
| Education and welfare services | 89,235,250 | 96,970,000 | +7,734,750 |
| Resources management | 37,691,300 | 40,728,000 | +3,036,700 |
| Revolving fund for loans | 2,000,000 | | −2,000,000 |
| Construction | 58,300,000 | 51,176,000 | −7,124,000 |
| Road construction (liquidation of contract authorization) | 15,000,000 | 17,000,000 | +2,000,000 |
| General administrative expenses | 4,265,000 | 4,331,000 | +66,000 |
| Menominee educational grants | 132,000 | 88,000 | −44,000 |
| Total, Bureau of Indian Affairs, exclusive of tribal funds | 206,623,550 | 210,293,000 | +3,669,450 |
| Tribal funds (not included in totals of this tabulation) | (3,000,000) | (3,000,000) | |
| National Park Service: | | | |
| Management and protection | 27,124,000 | 29,712,000 | +2,588,000 |
| Maintenance and rehabilitation of physical facilities | 21,566,750 | 23,500,000 | +1,933,250 |
| Construction | 32,697,000 | 25,406,000 | −7,291,000 |
| Construction (liquidation of contract authorization) | 29,000,000 | 30,000,000 | +1,000,000 |
| General administrative expenses | 2,136,750 | 2,412,000 | +275,250 |
| Total, National Park Service | 112,524,500 | 111,030,000 | −1,494,500 |
| Bureau of Outdoor Recreation: Salaries and expenses | 1,900,000 | 2,700,000 | +800,000 |
| Office of Territories: | | | |
| Administration of territories | 13,000,000 | 18,814,000 | +5,814,000 |
| Trust Territories of the Pacific Islands | 15,000,000 | 17,500,000 | +2,500,000 |
| Total, Office of Territories | 28,000,000 | 36,314,000 | +8,314,000 |
| Total, Public Land Management | 394,260,550 | 409,184,000 | +14,923,450 |
| MINERAL RESOURCES | | | |
| Geological Survey: Surveys, investigations, and research | 63,700,000 | 69,223,000 | +5,523,000 |
| Bureau of Mines: | | | |
| Conservation and development of mineral resources | 29,404,000 | 30,377,000 | +973,000 |
| Health and safety | 8,664,000 | 9,530,000 | +866,000 |
| General administrative expenses | 1,460,000 | 1,425,000 | −35,000 |
| Development and operation of helium properties (borrowing authorization) | (6,000,000) | (20,000,000) | (+14,000,000) |
| Total, Bureau of Mines | 39,528,000 | 41,332,000 | +1,804,000 |
| Office of Coal Research: Salaries and expenses | 5,075,000 | 6,836,000 | +1,761,000 |
| Office of Minerals Exploration: Salaries and expenses | 850,000 | 900,000 | +50,000 |
| Office of Oil and Gas: Salaries and expenses | 615,500 | 660,000 | +44,500 |
| Total, mineral resources | 109,768,500 | 118,951,000 | +9,182,500 |

*Comparative statement of the appropriations for fiscal year 1964, and the estimates for fiscal year 1965*—Continued

| Item | Appropriations, 1964 | Budget estimates, 1965 | Increase (+) or decrease (−), 1965 budget estimates compared with 1964 |
|---|---|---|---|
| TITLE I—DEPARTMENT OF THE INTERIOR—Continued | | | |
| FISH AND WILDLIFE SERVICE | | | |
| Office of the Commissioner of Fish and Wildlife: Salaries and expenses | $386,000 | $393,000 | +$7,000 |
| Bureau of Commercial Fisheries: | | | |
| Management and investigations of resources | 17,832,900 | 20,681,000 | +2,848,100 |
| Management and investigations of resources (special foreign currency program) | 300,000 | 300,000 | |
| Construction | 4,450,000 | 4,788,000 | +338,000 |
| Construction of fishing vessels | 750,000 | | −750,000 |
| General administrative expenses | 653,000 | 676,000 | +23,000 |
| Administration of Pribilof Islands (indefinite appropriation of receipts) | (2,468,000) | (2,442,000) | (−26,000) |
| Limitation on administrative expenses, fisheries loan fund | (270,000) | (277,000) | (+7,000) |
| Total, Bureau of Commercial Fisheries | 23,985,900 | 26,445,000 | +2,459,100 |
| Bureau of Sport Fisheries and Wildlife: | | | |
| Management and investigations of resources | 30,589,900 | 34,419,000 | +3,829,100 |
| Construction | 5,243,500 | 3,593,000 | −1,650,500 |
| Migratory bird conservation account | 10,000,000 | 8,000,000 | −2,000,000 |
| General administrative expenses | 1,359,000 | 1,384,000 | +25,000 |
| Total, Bureau of Sport Fisheries and Wildlife | 47,192,400 | 47,396,000 | +203,600 |
| Total, Fish and Wildlife Service | 71,564,300 | 74,234,000 | +2,669,700 |
| OFFICE OF SALINE WATER | | | |
| Salaries and expenses | 10,000,000 | 10,650,000 | +650,000 |
| Operation and maintenance | 1,850,000 | 2,300,000 | +450,000 |
| Total, Office of Saline Water | 11,850,000 | 12,950,000 | +1,100,000 |
| OFFICE OF THE SOLICITOR | | | |
| Salaries and expenses | 4,000,000 | 4,173,000 | +173,000 |
| OFFICE OF THE SECRETARY | | | |
| Salaries and expenses | 3,858,400 | 4,125,000 | +266,600 |
| Total, definite appropriations | 595,301,750 | 623,617,000 | +23,815,250 |
| Total, indefinite appropriations of receipts | 12,716,000 | 12,215,000 | −501,000 |
| Total, borrowing authorizations | 6,000,000 | 20,000,000 | +14,000,000 |
| Total, title I, Department of the Interior | 614,017,750 | 655,832,000 | +41,814,250 |
| TITLE II—RELATED AGENCIES | | | |
| DEPARTMENT OF AGRICULTURE | | | |
| Forest Service: | | | |
| Forest protection and utilization: | | | |
| Forest land management | 147,312,000 | 150,419,000 | +3,107,000 |
| Forest research | 25,893,000 | 29,944,000 | +4,051,000 |
| State and private forestry cooperation | 15,943,000 | 16,955,000 | +1,012,000 |
| Total, forest protection and utilization | 189,148,000 | 197,318,000 | +8,170,000 |
| Forest roads and trails (liquidation of contract authorization) | 63,200,000 | 72,300,000 | +9,100,000 |
| Acquisition of lands for national forests: | | | |
| Wasatch National Forest | 250,000 | 150,000 | −100,000 |
| Special acts (indefinite appropriation of receipts) | (70,000) | (70,000) | |
| Cooperative range improvements (indefinite appropriation of receipts) | (700,000) | (700,000) | |
| Assistance to States for tree planting | 1,000,000 | 1,000,000 | |
| Total, definite appropriations | 253,598,000 | 270,768,000 | +17,170,000 |
| Total, indefinite appropriations | 770,000 | 770,000 | |
| Total, Forest Service, Department of Agriculture | 254,368,000 | 271,538,000 | +17,170,000 |

*Comparative statement of the appropriations for fiscal year 1964, and the estimates for fiscal year 1965*—Continued

| Item | Appropriations, 1964 | Budget estimates, 1965 | Increase (+) or decrease (−), 1965 budget estimates compared with 1964 |
|---|---|---|---|
| TITLE II—RELATED AGENCIES—Continued | | | |
| FEDERAL COAL MINE SAFETY BOARD OF REVIEW | | | |
| Salaries and expenses | $65,000 | $70,000 | +$5,000 |
| COMMISSION OF FINE ARTS | | | |
| Salaries and expenses | 91,000 | 161,000 | +70,000 |
| DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE | | | |
| Public Health Service: | | | |
| Indian health activities | 58,960,750 | 61,576,000 | +2,615,250 |
| Construction of Indian health activities | 5,350,000 | 8,643,000 | +3,293,000 |
| Total, Public Health Service | 64,310,750 | 70,219,000 | +5,908,250 |
| INDIAN CLAIMS COMMISSION | | | |
| Salaries and expenses | 297,000 | 313,000 | +16,000 |
| NATIONAL CAPITAL PLANNING COMMISSION | | | |
| Salaries and expenses | 650,000 | 774,000 | +124,000 |
| NATIONAL CAPITAL TRANSPORTATION AGENCY | | | |
| Salaries and expenses | 1,000,000 | 500,000 | −500,000 |
| SMITHSONIAN INSTITUTION | | | |
| Salaries and expenses | 13,124,000 | 14,794,000 | +1,670,000 |
| Remodeling of Civil Service Commission Building | 5,465,000 | 1,000,000 | −4,465,000 |
| Construction and improvements, National Zoological Park | 1,275,000 | 1,776,000 | +501,000 |
| National Air Museum | 511,000 | 1,364,000 | +853,000 |
| Salaries and expenses, National Gallery of Art | 2,138,000 | 2,147,000 | +9,000 |
| Total, Smithsonian Institution | 22,513,000 | 21,081,000 | −1,432,000 |
| TRANSITIONAL GRANTS TO ALASKA | | | |
| Grants | 3,000,000 | | −3,000,000 |
| HISTORICAL AND MEMORIAL COMMISSIONS | | | |
| Civil War Centennial Commission | 100,000 | 100,000 | |
| Corregidor-Bataan Memorial Commission | | 25,000 | +25,000 |
| Total, definite appropriations | 345,624,750 | 364,011,000 | +18,386,250 |
| Total, indefinite appropriations | 770,000 | 770,000 | |
| Total, title II, related agencies | 346,394,750 | 364,781,000 | +18,386,250 |
| TITLE III—VIRGIN ISLANDS CORPORATION | | | |
| Limitation of administrative expenses, Virgin Islands Corporation | (186,000) | (156,000) | (−30,000) |
| Grand total: | | | |
| Definite appropriations | 940,926,500 | 987,628,000 | +46,701,500 |
| Indefinite appropriation of receipts | 13,486,000 | 12,985,000 | −501,000 |
| Borrowing authorizations | 6,000,000 | 20,000,000 | +14,000,000 |
| Total | 960,412,500 | 1,020,613,000 | +60,200,500 |

*Appropriations compared with receipts (exclusive of trust funds)—Department of the Interior, exclusive of the Bureau of Reclamation and power marketing agencies*

APPROPRIATIONS

| | 1963 actual | 1964 estimate | 1965 estimate |
|---|---|---|---|
| Annual definite | $588,806,200 | $595,301,750 | $623,617,000 |
| Annual indefinite | 10,416,550 | 12,715,730 | 12,215,000 |
| Authorizations to expend from debt receipts | 6,200,000 | 6,000,000 | 20,000,000 |
| Permanent | 111,433,641 | 114,345,651 | 120,050,500 |
| Revolving and management funds (programed expenditures) | 39,831,609 | 75,598,128 | 67,840,000 |
| Total[1] | 756,688,000 | 803,961,259 | 843,722,500 |

RECEIPTS

| | | | |
|---|---|---|---|
| Admission fees and concessions | $6,382,892 | $6,644,579 | $6,853,350 |
| Hunting stamps and receipts from sale of refuge products | 5,894,221 | 6,263,300 | 6,405,000 |
| Grazing fees | 4,480,226 | 4,989,000 | 5,269,000 |
| Revenues, Oregon and California and Coos Bay Wagon Road lands | 31,280,644 | 37,320,200 | 34,020,200 |
| Sale of sealskins and other products | 4,553,707 | 6,116,200 | 4,705,300 |
| Oil, gas, and mining royalties and rents | 114,058,507 | 120,110,000 | 124,245,000 |
| Receipts, mineral leasing, Outer Continental Shelf | 366,814,432 | 183,000,000 | 272,000,000 |
| Interest on and repayment of principal to certain funds | 674,437 | 650,000 | 575,000 |
| Collections, reclamation fund: | | | |
| Bureau of Land Management: | | | |
| Receipts from mineral leasing, public lands | 54,020,611 | 54,866,000 | 56,763,000 |
| Other receipts | 5,284,502 | 5,134,000 | 5,134,000 |
| Total collections, reclamation fund | 59,305,113 | 60,000,000 | 61,897,000 |
| Miscellaneous rentals, fees, and permits | 3,598,621 | 3,614,900 | 3,610,400 |
| Collections and services to Indians | 7,699,654 | 8,000,200 | 8,204,200 |
| Recoveries and refunds | 1,962,538 | 1,832,550 | 1,732,550 |
| Sale of public lands, buildings, and other property | 706,765 | 861,650 | 860,150 |
| Unclassified receipts | 208,831 | 129,485 | 128,485 |
| Receipts: | | | |
| Federal aid in fish restoration and management | 6,032,494 | 6,358,099 | 6,000,000 |
| Federal aid in wildlife restoration | 14,911,717 | 16,237,886 | 16,000,000 |
| Promote and develop fishery products and research pertaining to American fisheries | 5,071,342 | 5,373,096 | 5,200,000 |
| Internal revenue collections for Virgin Islands | 7,682,529 | 7,042,107 | 8,000,000 |
| Revolving and management funds (revenues) | 46,244,441 | 47,668,963 | 45,923,000 |
| Gross receipts | 687,563,111 | 522,212,215 | 611,628,635 |
| Less duplication [1] | 54,020,611 | 54,866,000 | 56,763,000 |
| Net receipts | 633,542,500 | 467,346,215 | [2] 554,865,635 |

NET DIFFERENCE

| | | | |
|---|---|---|---|
| Amount by which appropriations exceed net receipts | $123,145,500 | $336,615,044 | $288,856,865 |

[1] Receipts duplicated are as follows:

| Item | 1963 actual | 1964 estimate | 1965 estimate |
|---|---|---|---|
| Receipts from mineral leasing, public lands, collected by Bureau of Land Management included in "Oil, gas, and mining royalties and rents" and "Collections, reclamation fund" | $54,020,611 | $54,866,000 | $56,763,000 |

[2] Excludes estimated receipts of $125,000,000 based on proposed legislation for the new "land and water conservation fund."

JUSTIFICATION

Chairman HAYDEN. Also, I will include in the record the statements presented to the committee in justification of the permanent appropriations for the Department of the Interior.

(The justifications referred to follow:)

JUSTIFICATIONS FOR PERMANENT APPROPRIATIONS, FISCAL YEAR 1965

BUREAU OF LAND MANAGEMENT

*Miscellaneous permanent appropriations*

| | |
|---|---|
| Appropriated, 1964 (estimate) | $65,553,135 |
| Estimate, 1965 | 69,992,300 |
| Increase | 4,439,165 |

JUSTIFICATION

*1. Expenses, sale of timber, etc., on reclamation lands, $2,000*

The cost of making and administering timber sales by the Bureau of Land Management on reclamation withdrawn lands is refunded to the Bureau of Land Management from timber sale receipts (41 Stat. 202; 53 Stat. 1196).

*2. Leasing of grazing lands, Bureau of Land Management (receipt limitation), $1,000*

The act of June 23, 1938 (52 Stat. 1033), authorizes the Secretary of the Interior to enter into leases for the rental of grazing lands with States, counties, or private parties when the leasing of such lands will promote the orderly use of grazing district lands and aid in conserving the forage resources of the public lands therein. Under the act, rentals paid the lessors may not exceed the grazing fees paid the United States for grazing privileges on the land.

*3. Payments to Oklahoma (royalties), Bureau of Land Management (receipt limitation), $10,000*

The joint resolution of Congress approved June 12, 1926, provides for payment to the State of Oklahoma of 37½ percent of oil and gas royalties received from the south half of the Red River, Okla. The payment is in lieu of all State and local taxes upon Kiowa, Comanche, and Apache tribal funds received from such lands under the act of March 4, 1923 (42 Stat. 1448), and is to be used by the State for the construction and maintenance of public roads, or for the support of public schools, or other institutions of learning.

*4. Payments to Coos and Douglas Counties, Oreg., from receipts, Coos Bay wagon road grant lands, $750,000*

Not to exceed 75 percent of the receipts in any one year from the Coos Bay wagon road grant lands in Oregon are for payment annually, in lieu of taxes, to Coos and Douglas Counties, as provided in the act of February 26, 1919 (40 Stat. 1179), and the act of May 24, 1939 (53 Stat. 753–754).

The decrease of $225,000 reflects an anticipated decrease in receipts from these lands.

*5. Payments to counties, Oregon and California grant lands, $18,000,000*

In accordance with title II of the act of August 28, 1937 (50 Stat. 876), 75 percent of the moneys deposited in the Oregon and California land grant fund is paid to the counties in which the revested lands are situated.

However, the "Oregon and California grant lands" appropriation of the Bureau of Land Management provides that 25 percent of the receipts collected from sale of timber and other products on the O. & C. lands are available for management, protection, and development of resources, and for construction, operation, maintenance of access roads, reforestation, and other improvements on the O. & C. lands and other Federal lands in the Oregon and California land-grant counties of Oregon. The amount appropriated will be a reimbursable charge against the Oregon and California land-grant fund and be reimbursed to the general fund of

the Treasury. The estimate of $18 million to be paid to the counties in fiscal year 1965 is based on an estimated total receipts of $36 million collected from the sale of timber and other products on the O. & C. lands during fiscal year 1964. This is an increase of $2,968,730 over fiscal year 1964.

*6. Payments to States (grazing fees), Bureau of Land Management, $1,000*

Section 11 of the act of June 28, 1934 (43 U.S.C. 315j), provides that 33⅓ percent of all grazing fees received from each grazing district on Indian lands ceded to the United States for disposition under the public land laws, be paid to the State in which said lands are situated.

*7. Payments to States (proceeds of sales), Bureau of Land Management (receipt limitation), $232,000*

This appropriation is made to fulfill the Government's obligation to the States under various acts of Congress, which provide that 5 percent of the proceeds of sales of public lands and various materials therefrom, after deducting all the expenses incident to sale, shall be paid to the States for education or for making roads and improvements (31 U.S.C. 711).

*8. Payments to States from grazing receipts, etc., public lands outside grazing districts, Bureau of Land Management, $350,000*

Payments are made to States of 50 percent of moneys received as grazing fees from public lands outside grazing districts, under the provisions of section 15 of the act of June 28, 1934, as amended (43 U.S.C. 315i, 315m).

The increase of $15,200 reflects an anticipated increase in receipts.

*9. Payments to States from grazing receipts, etc., public lands within grazing districts, Bureau of Land Management, $324,200*

Under the provisions of section 3 of the act of June 28, 1934 (43 U.S.C. 315(b)), 12½ percent of receipts from grazing fees from public lands within grazing districts is paid to States in which the lands are situated.

The increase of $20,000 reflects an anticipated increase in receipts.

*10. Payments to States from grazing receipts, etc., public lands within grazing districts, miscellaneous, Bureau of Land Management, $10,000*

Under the provisions of the act of June 28, 1934, as amended, this appropriation is provided for payment to States of amounts received from grazing fees on miscellaneous lands within grazing districts which are not susceptible to a standardized and uniform distribution on a percentage basis (43 U.S.C. 315).

*11. Payments to States from receipts under Mineral Leasing Act, $49,301,100*

This is an appropriation for payment of 90 percent to Alaska and 37½ percent to Westerm States of receipts from bonuses, royalties, and rentals under the provision of the Mineral Leasing Act (30 U.S.C. 191), and 37½ percent of receipts from bonuses, royalties, and rentals from leases of potash deposits under the act of February 7, 1927 (30 U.S.C. 285).

The increase of $1,651,100 in 1965 is based on anticipated increase in the total receipts from these sources.

*12. Payments to counties, national grasslands, $211,000*

This account consists of amounts appropriated from revenues received during each calendar year from the use of submarginal lands transferred from the Department of Agriculture by Executive Order No. 10787, dated November 6, 1958. Twenty-five percent of the net revenues is used for school or road purposes or both (7 U.S.C. 1012).

*13. Expenses, Public Land Administration Act, $800,000*

Section 301 of Public Law 86-649, approved July 14, 1960, authorizes the appropriation of moneys received as a result of forfeitures by timber sale contractors for failure to restore areas damaged by cutting operations and other amounts received in settlement of damage to timberlands. Section 302 of the act authorizes the appropriation of moneys received from road users for road maintenance. The amounts appropriated are to remain available until expended. Any amounts in excess of the cost of doing the work authorized are required to be transferred to miscellaneous receipts (74 Stat. 507-508).

## Bureau of Indian Affairs

### CLAIMS AND TREATY OBLIGATIONS

*Statement relating 1963, 1964, and 1965 programs*

| | |
|---|---|
| 1963 program (obligations incurred) | $158,968 |
| 1964 program (obligations incurred) | 161,000 |
| 1965 program (obligations incurred) | 161,000 |

JUSTIFICATION

*1. Fulfilling treaties with Senecas of New York, $6,000*

This is a permanent annuity made pursuant to a provision in the act of February 19, 1831, which reads as follows:

"That the proceeds of the sum of $100,000 being the amount placed in the hand of the President of the United States in trust for the Seneca Tribe of Indians situated in the State of New York, be hereafter passed to the credit of the Indian appropriation fund, and that the Secretary of War be authorized to receive and pay over to the Seneca Tribe of Indians the sum of $6,000 annually in the way and manner as heretofore practiced, to be paid out of any money in the Treasury not otherwise appropriated."

This money is paid in equal share to about 4,880 members of the Seneca Nation, and any small balance is deposited to the credit of the tribe.

*2. Fulfilling treaties with Six Nations of New York, $4,500*

The Six Nations comprise the Senecas, Tonawanda Band of Senecas, Tuscarora, Onondago, Oneida, and Cayuga Tribes. This appropriation is made annually in fulfillment of treaty obligations for permanent annuity in accordance with the act of November 11, 1794, which reads in part as follows:

"In consideration of the peace and friendship hereby established * * * and with a view to promote the future welfare of the Six Nations and of their Indian friends aforesaid, the United States will add the sum of $3,000 to the $1,500 heretofore allowed them by an article ratified by the President on the 23rd day of April 1792, making in whole $4,500, which shall be expended yearly forever in purchasing clothing, domestic animals, implements of husbandry and other utensils suited to their circumstances, and in compensating useful artificers who shall reside with or near them and be employed for their benefit."

Approximately $2,700 is allocated annually to the New York Indians and is utilized for the purchase of dress goods; the remainder, approximately $1,800 is distributed per capita to the Oneida Indians under the jurisdiction of the Great Lakes Agency, Wis.

*3. Fulfilling treaties with Pawnees, Oklahoma, $30,000*

This sum is to pay the permanent annuity to the Pawnees, as required by article 2 as amended, of the treaty of September 24, 1857. As amended, this article provides:

"The United States agrees to pay to the Pawnees the sum of $30,000 per annum, as a perpetual annuity, to be distributed annually among them per capita, in coin, unless the President of the Uuited States shall from time to time otherwise direct. But it is further agreed that the President may, at any time in his discretion, discontinue said perpetuity by causing a value of a fair computation thereof to be paid to or expended for the benefit of said Indians in such manner as to him shall seem proper."

*4. Payments to Indians of Sioux reservations, $120,500*

This is an annual charge against the general fund of the Treasury, the amount being indefinite until applications are made and approved.

The act of March 2, 1889, provided for the issue of certain articles necessary to aid individual Sioux Indians in industrial pursuits, particularly on their own allotments. Later, by the act of June 10, 1896, authority was granted to compute the value of the articles named and to pay these Indians cash in lieu thereof. Payments made under this appropriation are commonly referred to as "Sioux benefits" and can be made only upon application of the individuals entitled thereto. When cash payments are made, funds are used for purposes of direct benefit to the individual involved, including the purchase of farm equipment or livestock, and home improvement.

The legal authority for these payments is found in the act of March 2, 1889, section 17 (25 Stat. 894); act of June 10, 1896 (29 Stat. 334); and the act of June 21, 1906 (34 Stat. 326).

## MISCELLANEOUS PERMANENT APPROPRIATIONS

*Statement relating to 1963, 1964, and 1965 programs*

| | |
|---|---|
| 1963 obligations incurred | $5,731,514 |
| 1964 appropriation (estimate) | 6,385,200 |
| 1965 appropriation (estimate) | 6,539,200 |

### JUSTIFICATION

*1. Acquisition of lands and loans to Indians in Oklahoma, act of June 26, 1936, $10,000*

It is estimated that $10,000 will be derived from mineral deposits underlying certain lands purchased in Oklahoma and will be used for the acquisition of lands and for loans to individual Indians, associations, or corporate groups of Indians residing in Oklahoma (25 U.S.C. 507).

*2. Indians arts and crafts fund, $200*

Fees charged for the use of Government trademarks attesting to genuineness and quality of Indian products and are used to stimulate sales of Indian arts and crafts (25 U.S.C. 305 a, c).

*3. Operation and maintenance, Indian irrigation systems, $4,075,000*

All funds requested under this appropriation are obtained from the collection of assessments against water users on the various projects and are deposited in the Treasury to the credit of the respective projects. By the expenditure of these funds, the various projects located on Indian reservations are maintained in good operating condition, thus permitting the facilities constructed by the Government to be utilized by the Indian and non-Indian landowners within the project who depend upon proper operation and maintenance of the projects for irrigation farming and subsistence.

The funds are used for operation of the irrigation systems to provide adequate water deliveries; for the annual cleaning of canals and laterals to remove silt, moss, and weed growth; for the repair and replacement of water control structures; for the operation and maintenance of reservoirs, dams, and pumping plants, including the purchase of electrical energy; for the purchase of materials and supplies and equipment used in operating and maintaining the irrigation system; for the maintenance, heating, and lighting of offices used for project administration and quarters occupied by project employees; for payment to the U.S. Geological Survey for stream gaging and water recording services; for payment to other Government agencies and irrigation districts for operation and maintenance of irrigation systems on Indian lands included and benefited; for the repair of flood damage and for all incidental and necessary expenses for the proper operation, maintenance, and administration of Indian irrigation projects. The policy in administration of Indian irrigation projects is to make the assessment rate for the various projects on a basis of actual costs.

*4. Power systems, Indian irrigation projects, Bureau of Indian Affairs, $2,234,000*

All funds under this permanent indefinite appropriation are from earned revenue deposited in the Treasury to the credit of the respective projects. This appropriation provides funds for the operation and maintenance of two hydrogenerating plants; a diesel power generating plant; transmission lines, distribution systems and pumping plants for use of the project irrigation systems; the purchase of power for resale and for all necessary expenses for operation of power systems. The project power systems not only serve their primary purpose of furnishing electrical energy to the projects for irrigation and drainage pumping, but also furnish energy to mining and milling properties, public utilities and domestic consumers on the project proper, in nearby towns and villages and in outlying farming areas. The energy supplied by these projects in many instances is the only source of electrical energy available to the customers. At present, there are approximately 9,600 domestic and commercial customers being served. A large number of potential customers have also applied for electrical service.

The activities under the appropriation consist of operation, maintenance, and improvement of power systems built in connection with irrigation projects on

the Gila River, Colorado River, and Flathead Indian Reservations. The facilities under these power projects consist in the aggregate of 4 generating plants of 17,620 kilowatt capacity; over 1,767 miles of transmission system; 113 project pumping plants and approximately 116 buildings used as quarters, powerhouses, and warehouses for both power and irrigation activities. Funds are used for payment of the salaries of power superintendents; power and pumping plant operators; line repair and maintenance crews; meter reading and reporting and a clerical force for billing and accounting for revenues; for the purchase of energy, and for the purchase and repair of equipment used on the power systems. An approximate of 115 million kilowatt-hours are transmitted over all project transmission and distributary systems annually.

*5. Colorado River Indian Reservation benefits, southern and northern reserve, $220,000*

All receipts from leasing of unassigned lands, Colorado River Indian Reservation, Ariz., southern and northern reserves, may be expended for the benefit of the Colorado River tribes and their members (69 Stat. 723).

## NATIONAL PARK SERVICE

*Miscellaneous permanent appropriations*

| | |
|---|---|
| Appropriated, 1964 | $148,729 |
| Estimate, 1965 | 133,000 |
| Decrease | 15,729 |

### JUSTIFICATION

*1. Educational expenses, children of employees, Yellowstone National Park, $108,000*

The act approved June 4, 1948 (62 Stat. 338), authorizes the Secretary of the Interior to make payments in advance or otherwise from any revenues received from the collection of visitor fees to the park, for providing educational facilities to pupils who are dependents of persons engaged in the administration, operation, and maintenance of Yellowstone National Park.

The 1965 budget estimate is compared with the amount available for 1964, as follows:

| | Available, 1964 | Estimate, 1965 | Change |
|---|---|---|---|
| Personnel compensation and benefits | $5,000 | $5,000 | |
| Contractual services | 71,000 | 75,000 | +$4,000 |
| Construction | 26,000 | 17,000 | −9,000 |
| Other expenses | 16,000 | 11,000 | −5,000 |
| Total | 118,000 | 108,000 | −10,000 |

*Personnel compensation and benefits.*—The amount of $5,000 will provide for the part-time services of custodial and maintenance employees.

*Contractual services.*—The estimate of $75,000 is needed to cover the prorata costs to the Government for qualified pupils who attend various public schools. It includes estimated payments to the Yellowstone National Park School District for hire of teachers, substitute teachers' services, and school supplies for the elementary school at park headquarters, and for reimbursing school districts in communities immediately adjacent to the park for tuition, transportation, etc. It is estimated that there will be 102 elementary and 48 high school students in 1965 as compared to estimates of 104 and 38 respectively, in 1964.

*Construction.*—The amount of $17,000 is included in this estimate to complete the school facilities on which construction was commenced in 1963.

*Other expenses.*—It is estimated that $11,000 will be required for other expenses connected with the school at park headquarters, principally for supplies, fuel, and equipment.

*2. Payment for tax losses on land acquired for Grand Teton National Park, $25,000*

Pursuant to the act of September 14, 1950 (64 Stat. 851), the Secretary of the Interior is authorized to use visitor fees collected at Grand Teton and Yellowstone National Parks to compensate the State of Wyoming for tax losses on lands acquired for Grand Teton National Park.

It is estimated that the amount of $25,000 will be required for this purpose to cover the tax schedule on 1963 calendar year taxes.

## Office of Territories

*Internal revenue collections for Virgin Islands*

| | |
|---|---|
| Appropriated, 1964 | $7,042,107 |
| Estimate, 1965 | 8,000,000 |
| Increase | 957,893 |

### JUSTIFICATION

Under the provisions of section 28(b) of the Revised Organic Act of the Virgin Islands, Public Law 517, 83d Congress, approved July 22, 1954, the Treasury Department is authorized to transfer customs duties and certain taxes into the treasury of the Virgin Islands, to be available for expenditure as prescribed therein.

The internal revenue collections available to the Virgin Islands for the fiscal year 1964 under the provisions of the revised organic act are $7,042,107. It is estimated that $8 million will be available in the fiscal year 1965. Any balance of internal revenue collections remaining after the amount equal to the revenue collected in the Virgin Islands has been transferred will be deposited into the Treasury as miscellaneous receipts.

## Geological Survey

*Permanent appropriation*

| | |
|---|---|
| Appropriated, 1964 | $500 |
| Estimate, 1965 | 1,000 |

### JUSTIFICATION

*Payment from proceeds, sale of water, Mineral Leasing Act of 1920, section 40(d), Geological Survey*

When lessees or operators drilling for oil and gas on public lands strike water, water wells may be developed by the Department from proceeds from the sale of water from existing wells (30 U.S.C. 221–229). During 1965 proceeds totaling $1,000 are anticipated. No obligations are anticipated in 1964 or 1965.

## Bureau of Commercial Fisheries

*Promote and develop fishery products and research pertaining to American fisheries*

| | |
|---|---|
| 1964 appropriation (receipts for calendar year 1962) | $5,373,096 |
| 1965 appropriation (estimated receipts for calendar year 1963) | 5,200,000 |
| Decrease | 173,096 |

Pursuant to the provisions of the act of July 1, 1954 (68 Stat. 376), as amended by the Fish and Wildlife Act of 1956 (70 Stat. 1119), an amount equal to 30 percent of the gross receipts from customs receipts on fishery products is maintained in a separate fund and used by the Secretary of the Interior (1) to promote the free flow of domestically produced fishery products in commerce; (2) to develop and increase markets for fishery products of domestic origin; and (3) to conduct any biological, technological, or other research pertaining to American fisheries. The work under this appropriation falls under four activities: (1) Marketing and technology, which includes commercial fishery economics, exploratory fishing and gear development, fishery market news service, commercial fishery statistics, fishery technological studies, and fishery education and market development; (2) research, which consists of coastal and offshore and inland fishery research, and commercial shellfishery research; (3) research on fish migration over dams; and (4) general administrative services, which cover such expenses incident to this program, including expenses of the American Fisheries Advisory Committee.

BUREAU OF COMMERCIAL FISHERIES

*Payment to Alaska from Pribilof Island receipts*

| | |
|---|---|
| Appropriated, 1964 | $589,300 |
| Estimate, 1965 | 1,606,000 |
| Increase | 1,016,700 |

Section 6(e) of the Alaska Statehood Act of July 7, 1958 (72 Stat. 339) provides that "Commencing with the year during which Alaska is admitted into the Union, the Secretary of the Treasury, at the close of each fiscal year, shall pay to the State of Alaska 70 per centum of the net proceeds, as determined by the Secretary of the Interior, derived during such fiscal year from all sales of sealskins or sea-otter skins made in accordance with the provisions of the Act of February 26, 1944 (58 Stat. 100; 16 U.S.C., secs. 631a–631q), as supplemented and amended * * *." Payment is to be made from the Pribilof Islands fund.

BUREAU OF SPORT FISHERIES AND WILDLIFE

*Migratory bird conservation account*

| | |
|---|---|
| Appropriated, 1964 (indefinite) (estimate) | $4,000,000 |
| Estimate, 1965 (indefinite) | 4,000,000 |

JUSTIFICATION

Receipts from the sale of Federal migratory bird hunting stamps under the Hunting Stamp Tax Act of March 16, 1934 (16 U.S.C. 718), are available exclusively for payment of Post Office Department expenses of printing and selling migratory bird hunting stamps, and the location, ascertainment, and acquisition of suitable areas for migratory bird refuges under the provisions of the Migratory Bird Conservation Act. The 1965 receipts are estimated at $4 million to be derived from the sale of 1,333,333 migratory bird hunting stamps at $3 each.

In 1963 there was appropriated an advance to the migratory bird conservation account, pursuant to the act of October 4, 1961 (16 U.S.C. 715k–3–5), of $7 million. An additional amount of $10 million was appropriated and transferred to the account for 1964.

In 1965 the estimate for this account includes a transfer of $8 million from the annual definite appropriation advances to the migratory bird conservation account. This is a decrease of $2 million under 1964. The total program of $12 million for 1965 is as follows:

| | Estimate, 1964 | Increase or decrease | Estimate, 1965 | Transfer from advances to migratory bird conservation account | Total estimate |
|---|---|---|---|---|---|
| 1. Printing and sale of hunting stamps: Payment to Post Office Department for cost of printing, sale, and accounting for migratory bird hunting stamps | $115,000 | ---------- | $115,000 | ---------- | $115,000 |
| 2. Acquisition of refuges and other areas: Costs of location, ascertainment, and acquisition of migratory bird refuges and waterfowl production areas are as follows: | | | | | |
| (a) Realty costs, involving location, ascertainment, and appraisal of areas; presentation of proposals to the Migratory Bird Conservation Commission; and, following approval of the Commission, negotiation, title verification, title clearance, and other expenses incident to vesting title in the United States. Included in this category: Solicitor's Office costs for legal services ($30,000) and Migratory Bird Conservation Commission costs of travel of Commissioners and ex officio members to attend meetings and costs incident thereto ($7,500). The $37,500 increase is derived from a reduction of "(c) Biological work costs" | 446,000 | +$37,500 | 483,500 | $999,500 | 1,483,000 |
| (b) Engineering costs in connection with location and ascertainment of areas; drafting services and other costs incident to preparation of preliminary development plans, outline specifications, estimates, and topographic maps; engineering studies and water rights investigations and filings; and other costs incident to preparing cases for presentation to Migratory Bird Conservation Commission; and, following approval by Commission, cadastral surveys incident to vesting title in the United States | 395,000 | ---------- | 395,000 | 240,000 | 635,000 |
| (c) Biological work costs in the location and ascertainment of refuge areas, and waterfowl production areas in the prairie pothole region of the Midwest; and the preparation of preliminary management plans and estimates; and other costs incident to preparing cases for presentation to the Migratory Bird Conservation Commission. The $37,500 reduction is transferred to "(a) Realty costs" | 307,500 | −37,500 | 270,000 | ---------- | 270,000 |
| (d) Administrative costs, including executive direction and general administrative services attributable to the program | 57,000 | ---------- | 57,000 | ---------- | 57,000 |
| (e) Costs of acquisition or rental of areas, including water rights, rights-of-way, easements, removal expenses of occupants, and other direct costs of acquiring the areas or rights therein | 2,679,500 | ---------- | 2,679,500 | 6,760,500 | 9,440,000 |
| Total program | 4,000,000 | ---------- | 4,000,000 | 8,000,000 | 12,000,000 |

*Federal aid in fish restoration and management*

| | |
|---|---|
| Appropriated, 1964 | $6,358,099 |
| Estimate, 1965 | 6,000,000 |
| Decrease | 358,099 |

JUSTIFICATION

The act of August 9, 1950, popularly known as the Dingell-Johnson Act (16 U.S.C. 777a–k) authorizes the Secretary of the Interior to cooperate with the States through their respective fish and game departments in fish restoration and management projects. The act authorizes appropriation of an amount equal to collections of the 10 percent manufacturers' excise tax on fishing rods, creels, reels, artificial lures, etc. There is authorized to be deducted from amounts so appropriated not to exceed 8 percent for expenses of administration of the act. The remainder is apportioned to the States on the basis of a formula which takes into account the land area and number of persons holding paid fishing licenses. The act provides for 1 percent minimum and 5 percent maximum apportionments to the States and fixed apportionments to the island possessions. The States and possessions have 2 years in which to obligate the apportionments. Any money not obligated reverts to the Bureau and is used for its sport fish research program. The 1965 program is a decrease of $400,000 as follows:

| | Estimate, 1964 | Increase or decrease | Estimate, 1965 |
|---|---|---|---|
| 1. Payments to States: States are reimbursed up to 75 percent of the cost of approved fish restoration and management projects, including research into fish culture; formulation of restocking plans; and acquisition and improvement of fish habitat. Island possessions are reimbursed 100 percent of the cost of such projects. The decrease is due to a reduction in receipts for 1964 to be apportioned in 1965 | $5,937,900 | −$406,700 | $5,531,200 |
| 2. Administration: Administration of the act includes apportionment of funds; examination and approval of fish restoration and management plans; processing of project agreement after approval of State plans; inspection of projects; making payments to States and auditing State expenditures; and coordinating research effort of the various States. The increase of $7,200 is due to increased pay costs for fiscal year 1964 positions | 436,600 | 7,200 | 443,800 |
| 3. Research: Funds not obligated by the States within a 2-year period revert and are used when available to supplement funds for fishery research in the "Management and investigations of resources" appropriation. The 1965 program is the same as 1964 | 25,500 | −500 | 25,000 |
| Total program | 6,400,000 | −400,000 | 6,000,000 |

*Federal aid in wildlife restoration*

| | |
|---|---|
| Appropriated, 1964 | $16,237,886 |
| Estimate, 1965 | 16,000,000 |
| Decrease | 237,886 |

JUSTIFICATION

The act of September 2, 1937, popularly known as the Pittman-Robertson Act (16 U.S.C. 669–669j) authorizes the Secretary of the Interior to cooperate with the States through their respective fish and game departments in wildlife restoration projects. The act authorizes the setting aside in a special Federal aid to wildlife restoration fund an appropriation of amounts equal to revenues from the 11 percent manufacturers' excise tax on firearms, shells, and cartridges. There is authorized to be deducted from amounts so appropriated not to exceed 8 percent for expenses of administration of the act. The remainder is apportioned to the States on the basis of a formula which takes equally into account the land area and the number of persons holding paid hunting licenses. The act provides for one-half of 1 percent minimum and 5 percent maximum apportionments to the States and fixed apportionments to the island possessions. The States and possessions have 2 years in which to obligate the apportionments. Any money

not obligated reverts to the Bureau and is used for carrying out the purposes of the Migratory Bird Conservation Act. The 1965 program is estimated at the same level as 1964.

| | Estimate, 1964 | Increase or decrease | Estimate, 1965 |
|---|---|---|---|
| 1. Payments to States: States are reimbursed up to 75 percent of the cost of approved wildlife restoration projects including acquisition and development of land and water areas, and for wildlife management research and maintenance of completed projects not to exceed 25 percent of the total amount apportioned. Island possessions are reimbursed 100 percent of the cost of such projects. The decrease is due to a reduction in receipts for 1964 to be apportioned in 1965 | $14,667,100 | −$18,400 | $14,648,700 |
| 2. Administration: Administration of the act includes apportionment of funds; examination and approval of wildlife restoration plans, specifications and estimates from the States; processing of project agreements after approval of State plans; inspection of projets; making payments to States and auditing State expenditures; and coordination of research effort of the various States. The increase of $16,600 is due to increased pay costs for fiscal year 1964 positions | 1,043,700 | +16,600 | 1,060,300 |
| 3. Carrying out Migratory Bird Conservation Act: Reverted funds are available for carrying out the purposes of the Migratory Bird Conservation Act. The 1965 program is at the same level as 1964 | 289,200 | +1,800 | 291,000 |
| Total program | 16,000,000 | | 16,000,000 |

*Payments to counties, national grasslands*

| | |
|---|---|
| Estimate, 1964 | $2,000 |
| Estimate, 1965 | 2,000 |

JUSTIFICATION

Executive Order No. 10787 transferring certain submarginal lands to the Secretary of the Interior for administration by the Bureau of Sport Fisheries and Wildlife as refuges for migratory birds and other wildlife provides that the counties shall participate in the net revenues from the use of such lands in accordance with the Farm Tenant Act (7 U.S.C. 1012). This act specifically provides that 25 percent of the net revenues received from the use of submarginal lands shall be paid after the close of the calendar year to the county in which such lands are situated for the benefit of schools and roads. When the land is situated in more than one county, the net receipts are prorated to each county in proportion to the area of the land in the particular county. Revenues from the use of these lands consist of receipts from grazing, rights-of-way, concession operations, and from other privileges on refuges.

*Permanent appropriations from national wildlife refuge receipts*

| | |
|---|---|
| Appropriated, 1964 | $2,494,599 |
| Estimate, 1965 | 2,416,000 |
| Decrease | 78,599 |

JUSTIFICATION

The Migratory Bird Conservation Act (16 U.S.C. 715s) authorizes the sale of products from the national wildlife refuge system. Revenues consist of receipts from the sale of surplus wildlife or of oil, timber, hay, grass or other spontaneous products of the soil, shell, sand or gravel and from other privileges on refuges.

*Expenses for sales, etc., in refuges, Migratory Bird Conservation Act, $156,000*

Section 401 of the act provides for deduction of the direct expenses of sales from refuge revenue prior to distribution of net revenues. Examples of such expenses are salaries of foresters to cruise and mark timber for sale, auctioneer's fees, transportation of furs to auction houses, and labor and supplies for butchering and shipping buffalo. The program for 1965 is estimated at the same level as 1964.

*Management of national wildlife refuges, $1,918,000*

A permanent appropriation (64 Stat. 693–694) of 75 percent of the net refuge revenues under the Migratory Bird Conservation Act is for management of national wildlife refuges and law enforcement. The 1965 program is as follows:

1. *Development and maintenance of wildlife refuges.*—To supplement funds provided for management of wildlife refuges in the appropriation management and investigations of resources. These funds are used for additional personnel, equipment, and general expenses needed for the management of the national wildlife refuge system. Included in the 1965 program is $50,000 for the establishment of a National Wildlife Refuge Training School at the Crab Orchard National Wildlife Refuge, Ill. The Bureau is in a critical period insofar as refuge personnel staffing is concerned, since 83 percent of the personnel in grades GS–11 and above will be eligible for retirement in the next 5 years, and because an expanded land acquisition program and intensified resource management will also demand the filling of 30 to 40 additional professionals annually. To properly train new personnel and especially to provide them with the broader knowledge of national resource management concepts and objectives, a central training school is a necessity. The Crab Orchard Refuge is well located geographically for this purpose, and has the facilities available that can be adapted to this program. The 1965 program totals $1,438,800, a decrease of $15,700 under 1964, because of decreased revenues.

2. *Enforcement activities.*—To supplement funds provided for enforcement of migratory bird laws in the management and investigations of resources appropriation. These funds are used for salaries and general expenses in support of the program of enforcement of the Migratory Bird Treaty and Lacey Acts. The 1965 program totals $479,200, a decrease of $17,800 under 1964, because of decreased revenues.

*Payments to counties from receipts under Migratory Bird Conservation Act, $565,000*

The Migratory Bird Conservation Act provides for participation of counties in revenues from refuges. After deduction of expenses from gross receipts on a refuge-by-refuge basis 25 percent of the remainder is paid to each county in which a refuge is located to be expended for the benefit of the public schools and roads. When a refuge is in more than one county the net receipts are prorated to each county in proportion to the area of the refuge in the particular county. The 1965 program is $565,000, a decrease of $23,000 under 1964, because of decreased revenues.

Chairman HAYDEN. The Secretary of the Interior is here to lead off the budget presentation for his Department this year.

Secretary Udall, you may introduce your staff members who accompany you, and then either read your statement or present it in highlight form.

## DEPARTMENT OF THE INTERIOR

### OFFICE OF THE SECRETARY

### STATEMENTS OF HON. STEWART L. UDALL, SECRETARY OF THE INTERIOR; D. OTIS BEASLEY, ADMINISTRATIVE ASSISTANT SECRETARY; AND SIDNEY D. LARSON, DIRECTOR OF THE BUDGET

FISCAL YEAR 1965 BUDGET PRESENTATION

Secretary UDALL. I have with me Assistant Secretary Beasley, and Mr. Larson, our Director of Budget. It is always a pleasure to appear before the subcommittee. I should like to file my statement and have it appear in the record and then cover the highlights of it.

Chairman HAYDEN. That may be done.

(The statement referred to follows:)

I appreciate the opportunity to appear before you today and to present the Department of the Interior programs embraced in the fiscal year 1965 appropriation estimates under consideration in the bill before you.

It is always a pleasure to appear before the members of this committee who have done so much for the conservation of our resources and have given such strong support to those human resource development programs which so intimately concern our Indian people and those who live in the territories.

## Conservation of Natural Resources

In this Nation our expanding economy and changing requirements of our citizens are imposing more and more demand on our natural resources. It is incumbent upon us today to carry out programs that insure the conservation of those resources, to assure that our actions today do not leave future generations with more serious problems of water supply and stream pollution, restricted areas of public use, and dwindling mineral resources that would put a drag on the future of our economy.

We cannot accomplish this all in 1 year, but we must continue our efforts, step by step, to achieve desirable objectives.

The budget estimates recommended for your consideration are based on economy and progress. They have been developed in accordance with the principles established by President Johnson in his program of frugal management in Government operations.

The President's theme of thrift and dollar value of benefits from dollar spent reinforces my own efforts in this direction in the administration of the Department of the Interior. There must be a continuing, all-out attack on avoidable costs in Government. I feel this is particularly true in my Department where needs and demands for new and expanded programs for natural resources conservation and development are so pressing. At least a substantial part of those needs and demands must be met by better utilization of existing resources.

## Redirection or Expansion of Programs

When I took office as Secretary of the Interior, I found that in almost every direction that I turned—national parks, Indians, public land management, territorial affairs, fisheries, water research and development, minerals, and the other Interior resource programs—there was a need for redirection or expansion of programs.

With the wise guidance of this committee, that redirection and expansion took on significant proportions as we launched new efforts to meet the conservation requirements of tomorrow.

Even though these programs do, for the most part, represent investment in the future and frequently result in substantial economic benefits or increased revenues to the U.S. Treasury, they could not simply be saddled on top of older on-going programs. I found that manpower and appropriations had to be redirected to meet our priority goals and greater economy and efficiency had to be introduced into our regular operations. Fortunately, Interior officials and employees responded to meet the demands of our situation. Over the past 3 years numerous actions, large and small, have been taken in Washington and in the field; some of the more significant of these put into effect in the past year and those planned for the immediate future are outlined in a separate statement which I ask be made a part of the record of these hearings.

## Steps to Reduce Employment

The committee will be interested in the steps taken to reduce employment in the Department. You will recall that last year the committee indicated the maximum number of positions the Department might fill under the amounts appropriated for 1964. Not only have we maintained our employment within the number desired by the committee, we have taken action to insure that employment will be below that number.

The Department's end-of-year employment for 1964 is now fixed at 72,342. For 1965 the Department will limit employment to 72,279, which is 63 less than employment for the current fiscal year.

The anticipated decrease below the 1964 level would be greater were it not for the compelling necessity of adding nearly 500 new positions to provide school teachers and supporting staff for urgently needed school facilities which will be completed for use in 1965 under the administration's high priority goal to provide educational opportunity for all Indian children of school age. Another unavoidable increase is for the trust territories where 63 school teacher positions must be added, as well as 12 doctors to man hospitals and provide medical services in areas where such services are now lacking.

### Program for Managerial Improvement

In achieving control of employment, the Department will, in part, look to sources outside the Federal Government for work now performed by Government personnel in those instances where that will result in a lower cost. In addition, a program for managerial improvements will be instituted and pushed vigorously. We are determined that efforts for better manpower utilization be strengthened to insure that the Department holds employment within the limit established.

To achieve the economy and promote the progress called for by this budget, we simply must use our scientific and technical knowledge to the best of our ability to meet today's resource problems and to avoid passing on undesirable conditions to further generations. To that objective we are dedicated, and we welcome the challenge it presents.

While the budget estimates under consideration in this bill do not include the requirements for reclamation and the power marketing agencies, I do wish briefly to refer to the total 1965 budget estimates for the Department in order that your committee may understand what has been accomplished in limiting appropriation requests to a level that I believe to be as low as possible and still avoid a stagnation of programs relating to natural resources—one of the main factors contributing to this Nation's progress.

### Budget Request for 1965

The budget request for 1965 is $1,027,667,000—this is $80,186,000 less than the amount included in the 1964 budget as it was first submitted to the Congress.

As to the estimates to be considered in this bill, the 1965 request is $643,617,000. While that amount is $42,650,935 more than the funds appropriated in fiscal year 1964, most of the increase is for what can fairly be described as unavoidable demands. Among the increases are $14 million for helium conservation, $10 million for Guam rehabilitation, $6,515,200 for Indian education, and $5,264,616 for pay cost increases legally effective January 5.

Fully to understand the impact of Interior's budget upon the finances of the Federal Government, it is necessary to take into account the substantial revenues produced in the Department's operations. In the period 1962–64, the Department's receipts have ranged from 50 to 80 percent of its expenditures. And in 1965, it is estimated the net receipts of the Department will be $784,728,424, equal to more than 76 percent of the expenditure. For these departmental activities covered by the estimates of $643,617,000 in this bill, receipts are estimated at $554,865,000, not including estimated receipts of $125 million from the land and water conservation fund now being considered in the Congress.

### Public Land Management

The budget for the Bureau of Land Management provides for continued improvements in the management of forest and range lands. Additional funds are included for the rehabilitation of burned-over lands. Increases are provided to maintain roads, buildings, and other facilities of the Bureau including those constructed with accelerated public works funds.

Funds to initiate construction of the fire control station at Anchorage, Alaska, also are included. Of particular importance is the request to initiate construction of sanitation and protection facilities for public health and safety in areas of intensive public use of the public lands.

### Bureau of Indian Affairs

The major increases requested for the Bureau of Indian Affairs are for education and economic development. If we are to be successful in decreasing the extreme poverty found on most Indian reservations, it is essential that we continue to press forward with these two basic programs. This is in keeping with President Johnson's recent statement on "Pockets of Poverty."

The only additional Federal employment being requested by the Bureau of Indian Affairs is for staffing new educational facilities that will open for the first time in fiscal year 1965, and to staff enlarged adult vocational training programs already authorized. It is proposed to acquire the additional manpower needed for economic development by making reductions in programs of a lesser priority.

### National Park Service

The budget for the National Park Service includes minimum increases under the operating appropriations designed to meet the needs of more than 102 million visitors, about 8 million more than visited the parks in 1963.

Natural science and wildlife management studies are being initiated to provide needed facts and information upon which to base policy, program, and management decisions having to do with the preservation development, and use of the parks

The 1965 fiscal year fund requirement for acquisition of lands is not included in this estimate. It is to be included in the proposed 1965 supplemental estimate of the Bureau of Outdoor Recreation to be funded from the proposed land and water conservation fund.

### Bureau of Outdoor Recreation

The budget request for the Bureau of Outdoor Recreation is increased to provide for the development of a national outdoor recreation plan and to coordinate the recreation programs of other Federal agencies. Definite overall plans are essential if there is to be adequate provision for open spaces and public-use areas without duplication of effort between Federal, State, and local governments. I cannot stress too strongly that a well conceived and recognized plan must be available for future planning of industrial and domestic program expansions if progress is to be made in an orderly manner and without impairing the natural value of our open spaces.

### Office of Territories

The Office of Territories' program for improving conditions in American Samoa has reached its peak and requirements for 1965 are below those of fiscal year 1964. However, the program for improving health, education, and living conditions for people of the trust territories is increased to the full authorization in order that we can meet our trusteeship obligations.

The budget also includes increased funds for the rehabilitation of Guam which will be implemented by a supplemental estimate already submitted to the Congress for fiscal year 1964.

### Mineral Resources

The budget for the Geological Survey provides continuing support for programs that are fundamental to the development and utilization of the Nation's land, water, and mineral resources.

An increase is requested for topographic mapping to resume work on the National Atlas, a composite of information that will be valuable for many uses including information, education, and nationwide planning.

The principal increase will provide for greater emphasis on the collection of basic water resources information during 1965 to meet the growing need for basic streamflow, ground water, and water quality data.

### Upper Mantle Project

The Upper Mantle project will provide fundamental knowledge on the subsurface geologic conditions and processes that are necessary to the search for mineral resources and many other land-use activities.

The marine geology and hydrology program in the Geological Survey is part of a coordinated interdepartmental program. More and more we must expect to look to the sea for resources and the Survey's program are designed to obtain data to facilitate such utilization.

The continuing program of the Conservation Division safeguards the public interest in the production of minerals from Federal and Indian lands, and from the Outer Continental Shelf, and in doing so supervises operations that will produce royalties in excess of $190 million this year.

### Bureau of Mines

Particular emphasis is placed in the budget for the Bureau of Mines for a continued effort to reduce the hazards of mining operations due to gas, dust, and other hazardous conditions.

An increase of $14 million is requested to continue the conservation of helium, the limited gas now being produced at five private plants and Government facilities.

The budget for the Office of Coal Research will provide to continue the research projects started in 1964 with limited increase to initiate a few additional research projects in fiscal year 1965. We feel that some benefit has already been received from the program carried on thus far from the effort to stimulate the use of coal abroad. This has resulted in increased demands for coal from the national supply as well as benefiting the Nation's balance of payments.

### Fish and Wildlife

The one resource of the world to be called upon more and more in the future will be that of the sea. Greater knowledge of this habitat and its productivity is needed as well as the effects of pollution and pesticides in the estuaries, the reproductive areas of the creatures of the sea.

Equally important are the fish and wildlife resources of the Nation which not only supply important recreational opportunities but a food supply as well. The budget for the Bureau of Commercial Fisheries includes increases for expansion of oceanographic programs, as part of the national oceanographic program, conducted by the Bureau in cooperation with other Government agencies. Other research programs, important to the health of the American public as well as the future of our country's fishing industry, are the results from the studies of botulism and pesticides.

### Pesticide Research

The more important and intriguing problems are not only the immediate effect of pesticides but the residual and carryover effect on future generations. A very interesting development is taking place in pesticide research. By adding Coturnix quail to the series of indicator (test) species, departmental biologists have scored a breakthrough in the rate of screening chemical pesticides for harmful effects on wildlife. The Coturnix, or Japanese quail as it is often called, reaches maturity in 35 to 50 days, produces eggs steadily for about 40 weeks, and has an incubation period of only 16 days. Accordingly, four generations can be raised and tested successively per year instead of only one as is the case with the more common animals such as bobwhite quail, pheasants, and mallards. The significance in terms of obtaining an early insight into the toxic long range effects, if any, of chemicals on body tissues and reproductive processes is self-evident. In fact, the encouraging results recorded thus far have prompted our scientists to recommend the Coturnix to contemporaries in the medical and paramedical fields.

A major program expansion for the Bureau of Sport Fisheries and Wildlife is in the field of research on the effects of pesticides. This expansion follows implementation by President Kennedy of the report of his Science Advisory Committee on use of pesticides. This report highlighted the increasing dangers from the widespread use of pesticides and the urgency of step-up in the Government's program to find solution to the myriad of problems stemming from this modern-day phenomenon.

In addition to pesticide research laboratories, the construction program includes work at the Leavenworth, Wash., fish hatchery, plans and specifications for the National Fisheries Center and Aquarium at Washington, D.C., and development on 12 wildlife refuges and advance planning for wildlife research facilities.

### Saline Water Conversion

The increase in the request for research funds reflects the need to develop an accelerated program of basic and fundamental studies in the search for more effective and economical means of saline water conversion. The budget request for the Office of Saline Water for fiscal year 1965 will provide funds for the maintenance and operation of these five plants and for continuing studies to develop more efficient methods of operation and plant improvements.

In recognition of the need to carry out the functions of Government most efficiently and effectively, a great amount of effort was expended in reviewing the fund and manpower needs of the Department. Where increases in the program have been considered necessary, offsetting decreases have been made insofar as possible. The budget also reflects a relatively small increase in employment primarily to provide for the education programs for the Indians and the people of the Trust Territories of the Pacific Islands. Increased number of positions are also included in the budget for Geological Survey. I wish to assure the committee that you will be informed as soon as the studies currently underway are completed that further downward adjustments can be made in employment.

We are continuing our efforts of more productive effort in the manpower field. We believe that the Department has made real progress over the past years although many of the achievements are not of the nature that attract widespread attention.

I have more detailed statements regarding the programs of the Department which in the interest of saving time I would like to file for the record at this point.

## Manpower Utilization and Management Improvement Achievements

### REORGANIZATION AND CONSOLIDATION

Major adjustments were made in the staff divisions of the Administrative Assistant Secretary resulting in the strengthening of Departmentwide attention to financial management, accounting systems, contract administration, automatic data processing and other aspects of administrative management as well as providing more effective centralized administrative services. Two new offices, the Office of Survey and Review and the Office of Management Operations, were established. The first combined into one organization departmental audit, analysis and investigative functions. To that Office was transferred the functions formerly assigned to the Division of Inspection, the financial review and regulatory functions of the Division of Budget and Finance and the contract review responsibilities of the Division of Property Management. To the Office of Management Operations was assigned responsibilities formerly vested in the Division of Administrative Services and the Division of Property Management.

The resources program staff redefined the role of their regional representative to strengthen the coordination of departmental program management in the field.

The major bureau reorganization completed this past year involved the Bureau of Mines with emphasis upon the realinement for minerals research, mineral resource development, and administration; the abolition of five regional offices; the consolidation of seven field administrative offices into two large offices; and the consolidation of all statistics operations.

Other changes included the elimination of a separate regional office for Alaska in the Bureau of Sport Fisheries and Wildlife; the abandonment of plans for suboffices below the regional office in the Bureau of Outdoor Recreation; the reduction of four BLM field administrative offices to two; and numerous small organization adjustments in almost all of the other bureaus.

### SIMPLIFICATION OF SYSTEMS AND PROCEDURES

Systems and procedures improvements were evident in nearly every bureau and office program involving major and minor economies. Bonneville Power Administration estimated annual savings resulting from system improvements of over $1 million and the Bureau of Reclamation reported over $7,800,000 in annual savings or revenue increases. The Bureau of Land Management reported on its use of new techniques for surveying in Alaska, Geological Survey on the use of new scribing techniques that have doubled the output of geologic maps between 1962 and 1963, the Bureau of Sport Fisheries and Wildlife on the preparation and distribution of hunting regulations, in the fish allocation and record system, and in the administration of migratory bird permits, and the National Park Service on its comprehensive paperwork management program.

### CONVERSION TO HIGH-SPEED DATA HANDLING EQUIPMENT

The electric power activities of the Department have achieved total annual savings in excess of $2 million through use of automatic data processing techniques. There is increasing emphasis upon improving and expanding these techniques, and in resolving the major organizational changes resulting therefrom. For example, the Bureau of Indian Affairs will centralize many administrative functions. This can be implemented only through computer procedures, and will involve savings of over 35 positions and $150,000 annually. The Department has instituted and is enforcing interbureau utilization of major computer facilities. This is a major decision dictated by the costs associated with acquiring and/or leasing ADP equipment and is also necessary to assure the immeasurable benefits of such facilities to the bureaus who would not be able to afford these management tools for their sole use. Concomitant steps are being taken to insure the most effective utilization of computer facilities, systems, and programing effort, through appropriate departmental review and advice on the economic and other aspects of proposed computer applications.

An interbureau computer project is being installed in Anchorage, Alaska. A much more significant joint-use arrangement is taking shape in Denver, Colo., a location at which Interior has substantial installations featured by the Chief Engineer's Office of the Bureau of Reclamation. Additionally, a joint-use operation has been established at the Portland, Oreg., office of the Bonneville Power Administration.

### MANAGEMENT SURVEYS

The Office of the Secretary has undertaken management surveys in the operations of the Office of the Science Adviser, the Office of Saline Water, Office of Coal Research, Office of the Solicitor, and of automatic data processing operations throughout the Department. Findings in each of these areas will result in significant program improvements and more effective utilization of manpower. Additional surveys are being planned to carry out the Secretary's cost and personnel reduction program.

Comprehensive bureauwide management surveys have been carried out in Bonneville Power Administration, Southwestern Power Administration, National Park Service, and the Bureau of Land Management during the past year. The survey of BLM by Dr. George Shipman and the Institute of Administrative Research at the University of Washington is of particular interest as a different approach for making an organizational and management appraisal.

### IMPROVEMENTS IN FORWARD PLANNING

The need for a departmentwide approach to strengthen forward planning for Interior's program is becoming increasingly apparent. This is particularly true in water resources research and development, recreation, oceanography, and a number of other program areas involving a number of bureaus of the Department and other agencies of the Government that are now being reviewed by committees attached to the Executive Offices. More attention will be focused on these areas in the current year.

Bureau forward planning efforts were particularly significant in the Geological Survey, Bureau of Sport Fisheries and Wildlife, Bureau of Commercial Fisheries, National Park Service, and the Bureau of Mines. Bonneville Power Administration expects to complete its Pacific Northwest economic base study in 1964 and is also undertaking a number of cooperative studies involving power resource estimating and power scheduling methods.

### USER CHARGES

One of the most sensitive areas of user charges receiving attention is that of grazing fees charged by the Bureau of Land Management. Thirty individual fee items have been increased during the last year, including a 58-percent increase in grazing fees on public lands which involves additional revenues to the United States of over $1 million annually. Other substantial increases in revenues are anticipated in Bonneville Power Administration and Southwestern Power Administration. If Congress takes favorable action on the land and water conservation fund proposed legislation, considerable attention will be focused on the problem of fees in relationship to the expanded recreation program.

### EMPLOYEE INCENTIVES

The Department of the Interior continues to operate a vigorous incentive awards program with benefits associated with suggestions and other contributions amounting to more than $350,000 last year. The Bureau of Mines has related the incentive awards program effectively to an emphasis upon training of employees and supervisors in the simple techniques of work improvement. A similar program is now underway for management operations personnel in the Office of the Secretary and will be extended to other areas. It is planned to take full advantage of the stimulation of the incentive awards program in carrying out the President's current program of cost reduction, economy, and efficiency.

### MANPOWER ECONOMIES INCLUDING PRODUCTIVITY STANDARDS

One of the most dramatic and effective examples of manpower economies in the Department of the Interior over the past year was the administration of a $63 million accelerated public works program with administrative costs by the bureaus

involved held to less than a hundredth of 1 percent of this amount. The Alaska Railroad increased its revenue-ton miles this past year with fewer employees. The Bureau of Reclamation is now managing an investment of $4.5 billion with 11,800 employees, or 7,500 less than the 19.260 employees needed to manage its $1.7 billion investment in 1950; and its professional engineering staff carried a contract workload of $144,000 per man-year in 1963, or 2½ times the $54,000 workload in 1959. The Bureau of Sport Fisheries and Wildlife's fishery research in 1962 maintained a production rate of 1.2 scientific publications per professional man-year at an average cost of $17,000 per publication; comparable industry-research averages, as reported by the National Science Foundation, were 0.8 publications at an average cost of $57,000—around three times higher.

The Bureau of Land Management participated in a Bureau of the Budget research project on productivity measurement and the National Park Service is developing performance standards for its uniform personnel. The Geological Survey and the Bureau of Mines also reports a number of significant projects in this area.

Additional emphasis will be devoted to this area in the next year by the Division of Management Research of the Office of the Administrative Assistant Secretary to adapt various measurement and quantification techniques to the requirements of individual programs and bureau operations.

#### PROCUREMENT AND PURCHASING METHODS

The Office of Management Operations in the Office of the Administrative Assistant Secretary was instrumental in developing a departmentwide program for the use of excess property having an original acquisition cost of over $17 million. Bonneville Power Administration has reduced payments for rights-of-way by $175,000; the Office of Saline Water has developed a program to produce savings of 40 percent on items acquired by contractors through GSA; and Southwestern Power Administration has reduced its administrative costs of contracting by 79 percent.

#### PROPERTY MANAGEMENT, INCLUDING ACQUISITION AND DISPOSAL

During the past year 50,000 cubic feet of records were disposed of, releasing space and filing equipment valued at $535,000. Bonneville Power Administration is saving $224,000 by using centralized procurement and warehousing facilities.

The details of the individual bureau programs are set forth in the attached reports. We have also included copies of the letters of responsible bureau management officials in transmitting these reports to the Secretary as evidence of the sincerity and importance given to the President's program of cost reduction and more efficient administration.

## Analysis of Budget Estimates, 1965

### Public Land Management

The public land management responsibilities of the Department of the Interior are carried out through the Bureau of Land Management, Bureau of Indian Affairs, National Park Service, Bureau of Outdoor Recreation, and the Office of Territories.

The estimate of $409,184,000 is an increase of $15,178,921 over the $394,005,079 available in 1964.

Proposed program increases will provide better management of public and Indian lands and forests, help meet the expanding demand for and use of outdoor recreation facilities, and advance the educational and economic development of the Indian people and those in territorial and trusteeship areas under U.S. jurisdiction.

### Bureau of Land Management

The budget for the Bureau of Land Management for fiscal year 1965 is $48,847,000, compared with $45,126,500 for 1964. This includes $45,447,000 for management of lands and resources, $1,400,000 for construction of buildings and sanitation and protection facilities, and $2,000,000 for liquidation of obligations incurred under contract authorization contained in the Federal Highway Act of 1962. In addition, $8,250,000 is provided for the Oregon and California grant lands with the provision that this amount is reimbursable to the Treasury from ceipts from those lands.

The operating appropriation for the Bureau is increased in the budget by $1,380,500. The fiscal year 1965 program emphasizes additional funds for the management of forest and range resources of the public lands; prompt rehabilitation of burned-over public lands; and increased maintenance of roads, buildings, and other facilities.

In fiscal year 1965 an initial $1 million is provided for construction of sanitation and protection facilities on certain public lands under multiple-use management where public recreational use is heavy. These facilities will help to reduce hazards to public health in such areas as the Owens River in California and the Salmon River in Idaho where present intensive use without facilities is resulting in pollution and other health hazards. Construction of the first phase of the Anchorage, Alaska, fire control station is scheduled for $400,000. This facility, when completed, will permit more efficient fire protection and control for southwestern Alaska.

The Bureau of Land Management is a producer of substantial revenue to the U.S. Treasury and to States and counties. Receipts for 1965 are estimated at $445 million, of which $69 million will be paid to States and counties in which the public lands are located. Thus, receipts continue to be several times the amount of investment in the resource management and development programs conducted by the Bureau.

### BUREAU OF INDIAN AFFAIRS

The budget estimate for the Bureau of Indian Affairs for the fiscal year 1965 is $210,293,000, a net increase of $3,766,250 over the adjusted appropriation for the fiscal year 1964 of $206,526,750. Of this increase, $1,264,450 is for increased pay costs and $2,501,800 is for increased program operations.

### EDUCATION AND WELFARE

For education and welfare services the estimate is $96,970,000, a program increase of $6,971,800 over 1964. Program increases are included for additional costs to public schools educating Indian children under Johnson-O'Malley plans; increased enrollment in Federal facilities; increased child welfare caseloads; an expanded program of adult vocational training; and expansion of law and order programs where most urgently needed.

### RESOURCES MANAGEMENT

For resources management the estimate is $40,728,000, a program increase of $2,636,000 over 1964. The program increases are for additional timber sales; additional credit staff to service the growing number of loan and financing transactions; improved road maintenance of school bus routes; additional real estate staff to handle the ever-increasing number of real property transactions; and the maintenance of newly constructed Federal facilities. Increases are also requested for economic development program.

### CONSTRUCTION

The estimate for construction is $51,176,000 as compared with $58,238,000 for fiscal year 1964. The major portion of these funds will be used for the replacement, expansion, and improvement of obsolete school facilities; relief of some overcrowding; and for an increasing school population. Funds also are included for the continuation of construction of the Navajo Indian irrigation project.

### ROAD CONSTRUCTION

The estimate for road construction is $17 million as compared to $15 million for the fiscal year 1964. These funds are needed to liquidate obligations incurred under contract authorization provided in the Federal Aid Highway Act.

### MENOMINEE TRIBE SCHOOL COSTS

The estimates also include $88,000 for payment to the State of Wisconsin for joint school district costs for the county of Menominee. These funds are requested to lessen the impact of the termination of Federal services to the Menominee Tribe.

## National Park Service

It is estimated that park visitation will reach 102 million in 1965 as compared to 94,093,000 in 1963 and an estimate of 96 million in 1964. In addition to the need to recognize and plan for serving the increasing number of visitors, the budget also makes provision for increased fund requirements for operating and maintaining the many new and reconstructed facilities that are being completed in the parks under the Mission 66 construction program.

The 1965 fiscal year budget provides $111,030,000 for the National Park Service. This is a net decrease of $1,421,829 under the amount available for 1964.

### MANAGEMENT AND PROTECTION

The budget provides $29,712,000 for "Management and protection," an increase of $2,635,417 over the amount available for 1964; $23,500,000 for "Maintenance and rehabilitation of physical facilities," an increase of $1,958,504; $2,412,000 for "General administrative expenses," an increase of $275,250; $25,406,000 for "Construction," a decrease of $7,291,000; and $30 million for "Construction (liquidation of contract authorization)," an increase of $1 million.

The increase requested for the "Management and protection" and "Maintenance and Rehabilitation of physical facilities" appropriations, totaling $4,593,921, provides $3,658,321 for the benefit of park operating programs; $430,000 to cover wage rate increases in effect as of August 15, 1963, and $505,600 to meet increased costs incident to classified employee salary increases made pursuant to Public Law 87-793. These proposed increases include funds for operating and maintaining the following new areas for which funds are not now provided: Hamilton Grange National Memorial, N.Y., and the Frederick Douglass Home, District of Columbia. Also in the category of increases for the benefit of park operating programs is provision for strengthening the U.S. Park Police Force for the National Capital park areas; for continuing and expanding the program commenced in fiscal 1963 for converting existing park radio systems to narrow-band frequencies; for paying service connection charges incident to obtaining commercial electric and telephone service in some of the isolated park areas; for more adequate fire protection service in the parks; and for production of increased quantities of informational publications to meet heavy visitor demands. It is also proposed to initiate a coordinated program of natural science and wildlife management studies to provide needed facts and information upon which to base policy, program and management decisions having to do with the preservation, development, and use of the parks.

### CONSTRUCTION ESTIMATES

The construction estimate provides for the following:

| | |
|---|---|
| Buildings, utilities, and other facilities | $24,926,000 |
| Acquisition of water rights | 480,000 |
| Total | 25,406,000 |

The estimate for buildings, utilities, and other facilities provides $3,870,000 for the first stage of a supplemental water supply and rehabilitation of the sewer system project at Grand Canyon National Park, Ariz.; $1,826,900 for various developments including a day-use building at Mount Rainier National Park, Wash.; $799,500 for continuing work at Independence National Historical Park, Pa.; $1,291,300 for various developments at Glacier Bay and Sitka National Monuments in Alaska; and $1,031,000 for various developments at Yellowstone National Park, Wyo. The program provides $16,107,300 for various buildings, utilities, and related projects in other park areas.

The 1965 fiscal year fund requirement for acquisition of lands is not included in this estimate. It is to be included in the proposed 1965 supplemental estimate of the Bureau of Outdoor Recreation to be funded from the proposed land and water conservation fund. This action accounts for the major portion ($5,300,000) of the reduction ($7,291,000) indicated in the third paragraph of this statement under the "Construction" appropriation item.

CONSTRUCTION (LIQUIDATION OF CONTRACT AUTHORIZATION)

The budget request of $30 million under the item "Construction (liquidation of contract authorization)" is for partial liquidation of obligations to be incurred under the 1965 contract authorization and obligations incurred under the contract authorization for 1964 and prior years. The roads and trails and parkways construction programs are in the amounts of $21,600,000 and $12,400,000, respectively, for which contract authorization is provided in the Federal-Aid Highway Act of 1962. Some of the major projects included in these programs are as follows: $2,405,000 is included for completing the 11-mile gap around Asheville, N.C., on the Blue Ridge Parkway on which construction is now underway or has been financed (this 11-mile section and the 5.5 miles around Grandfather Mountain are the only stretches of the entire Blue Ridge Parkway remaining to be completed); $1,385,000 is included for starting construction on a 5.5 mile section of road from the eastern terminus of the Foothills Parkway in Tennessee, at the Pigeon River, to connect with proposed Interstate Route 40 near Brown Island, at the Pigeon River, where the State is constructing an interchange for the Foothills Parkway; $1,304,700 is included for continuing construction on the Natchez Trace Parkway in Mississippi, from U.S. Highway 61 at Port Gibson, to Mississippi Highway 552, for a distance of about 6 miles; and $1 million is included for construction of city streets in the city of Vicksburg, Miss., as a substitute for roads being removed from Vicksburg National Military Park, pursuant to the provisions of Public Law 88–37, approved June 4, 1963.

GENERAL ADMINISTRATIVE EXPENSES

The increase of $275,250 for "General administrative expenses" provides for strengthening the administrative staffs in the Washington and regional offices to meet the increase in administrative workload that has taken place since the commencement of Mission 66 and to intensify management analysis and statistical functions in the interest of full utilization of manpower and fund resources; and for increased salary costs as authorized by Public Law 87–793.

## Bureau of Outdoor Recreation

The Bureau is requesting a total of $2,700,000 for 1965, an increase of $800,000 over the amount appropriated in fiscal year 1964. The increase is needed for work on the nationwide recreation plan, to assist the States in developing statewide plans, to investigate special areas being considered for recreation development, and to strengthen the Bureau's coordinating function, particularly in the review of programs, budgets, and legislation of other Federal agencies.

The Bureau's program for 1965 is based on the ultimate objective of providing adequate outdoor recreation opportunities to meet the needs of the public. It is essential that action be taken now toward providing for the future more and better outdoor opportunities so that the Nation's citizens may use their leisure hours in the pursuit of constructive and healthful outdoor activities. Increases in population, leisure time, personal income, and mobility have combined to greatly expand the demands for outdoor recreation. The Congress has recognized that action in this field is a public as well as private responsibility.

Most outdoor recreation areas now are overcrowded and inadequate to meet current demands, and these demands are increasing at a very rapid rate. With the Nation's population expected to reach 350 million by the year 2000, just 37 years from now, it is important that immediate action be taken.

NATIONWIDE RECREATION PLAN

One of the primary functions of the Bureau, and the one which has top priority, is to formulate and maintain a comprehensive nationwide recreation plan. The funds requested for 1965 will allow the Bureau to accelerate the preparation of such a plan so as to meet the deadline set by Congress for its completion. This plan will identify current and future demand for outdoor recreation throughout the country, the resources currently available and those potentially available for the future, and will include recommendations as to how the needs can be met most effectively. The nationwide recreation plan will be built, in a large part, on plans developed by States. For this reason, the Bureau will give increased assistance to the States in the development of their plans.

Heretofore, assistance has been furnished to States covering a wide range of service-type activities. The Bureau proposes to discontinue furnishing such service-type activities to State and local agencies, as well as Federal agencies, and

concentrate its efforts on the devlopment of the nationwide recreation plan and to strengthening its program of Federal coordination.

The Bureau will be faced with a heavy load in reviewing special areas that offer outstanding recreation potential. In addition to areas presently scheduled for study, it is expected that data developed under the nationwide recreation plan will pinpoint other areas that should be reviewed carefully. This phase of the Bureau's program has a special sense of urgency, because if action is not taken soon to preserve these areas for recreation, they will be lost forever for that purpose either by preemption for other use or by becoming prohibitively expensive.

### Recreation Advisory Council

The Bureau will strengthen its Federal coordination function and will assist the Secretary in carrying out responsibilities assigned to him by the President under Executive Order 11017, issued April 28, 1962. That order directed the Secretary, in consultation with other members of the Recreation Advisory Council, to develop methods and procedures for improved interagency coordination in the development and carrying out of national outdoor recreation policies and programs.

The Bureau has initiated a comprehensive approach to Federal coordination. In accordance with the authority in the act of May 28, 1963, the Bureau will commence an intensive review of the authorities, functions, programs, budgets, operations, and proposed legislation of Fedral agencies engaged in outdoor recreation activities.

### Report on Recreation Activities

The Bureau will prepare a comprehensive report encompassing the recreation activities of the entire Federal Government. This report will point out overlaps and gaps in the Federal effort, effectiveness of Federal expenditures, omissions and conflicts in Federal policy, and recommend any adjustments that are believed to be needed in administrative responsibility, budgets, policy clarification, Federal-State relations, and legislative needs. The new approach to Federal coordination will provide the Congress and the executive branch of the Government with data on which to make basic policy decisions.

Through its program of Federal coordination, the Bureau has a unique opportunity to contribute to the efficiency of Federal Government operations. For example, about $100 million are expended annually for acquisition of recreation lands or lands that have recreation capabilities. Large sums are spent for recreation research and for operation and maintenance of recreation facilities. The Bureau is the one agency in the Federal Government where all projected expenditures for outdoor recreation activities can be summarized and reviewed by specialists in this field. This has never been done before although the Bureau did accumulate and review proposed Federal expenditures for fiscal year 1965–66 for outdoor recreation land acquisition and for research.

It is estimated that all agencies of the Federal Government expend an estimated $300 million annually in programs directly related to outdoor recreation. The need for an impartial review of these programs is obvious. The Bureau's total request for funds is less than 1 percent of this figure.

### River Basin Review

The Bureau will devote efforts to recreation planning in river basins and at water resource projects mainly on a reimbursable basis from other agencies. These areas offer tremendous potential for meeting the needs of the public for water-oriented recreation. These studies will be conducted in most instances as part of the comprehensive river basin review being conducted by various Federal agencies under coordinated direction and will contribute to the nationwide planning effort. The Bureau also will give attention to improving methods for determining and evaluating recreation benefits and cost allocations on Federal reservoir projects.

The Bureau will assist to a very limited degree, educational institutions and others in establishing education programs and activities and to encourage public use and benefits from outdoor recreation. To this end, planning has been initiated for holding a national conference on outdoor recreation education in July 1964 under the joint sponsorship of Syracuse University; State University of New York, College of Forestry; and the Bureau of Outdoor Recreation.

Provision is made in the budget for later transmission of a request for $40 million for fiscal year 1965 to provide funds for initial operation of the land and water conservation fund upon enactment of authorizing legislation.

### Office of Territories

The estimate of $36,314,000 includes $10,108,000 for Guam, $8,037,000 for American Samoa and $17,500,000 for the Trust Territory of the Pacific Islands. These funds will provide that continued emphasis be placed on the economic, social, and political development of these areas. The budget also contemplates a supplemental estimate of $11,464,000 for fiscal year 1964 for Guam to begin a rehabilitation program authorized by Public Law 88–170 of November 4, 1963.

The $10,108,000 estimate for Guam provides $10 million to enable that territory to go forward with the second phase of the rehabilitation program, including $940,000 for the College of Guam, $850,000 for an air terminal, $6,973,000 for sewer, water and power facilities, $1,137,000 for village development, and $100,000 for harbor planning.

The estimate of $8,037,000 for American Samoa is a net decrease of $4,239,000 under the current year appropriation, due mainly to a sharp decrease in requirements for the construction program since most major projects included in the 3-year greatly expanded program begun in fiscal year 1962 are scheduled for completion by the end of fiscal 1964. The budget year program includes $7,748,811 in the form of grants which will permit continued emphasis on education, particularly the educational TV program, public health, communications, and public works.

### Trust Territory of the Pacific Islands

The United States, through the Department of the Interior, administers the trust territory under a trusteeship agreement with the Security Council of the United Nations. As administering authority, the United States has obligated itself to promote political, economic, and educational development, and to improve the health and well-being of the Micronesians through improved public health measures. The trust territory covers a water area of 3 million square miles, with a total land area of 687 square miles. The population totals better than 80,000.

The estimate of $17,500,000 for the trust territory of the Pacific Islands is an increase of $2,500,000 over the amount available in the current fiscal year. It includes $4,920,000 for the construction program, $1,304,000 of which is for educational facilities, both elementary and secondary, $888,000 to complete a new hospital for the Truk district, and $2,728,000 for housing, airfield, power and water, road, communications, and other facilities. Other significant amounts are $3,900,000 for educational services, $2,120,000 for expanded medical services, $1,285,000 for resources management and development, and $3,575,000 for operations, maintenance, transportation, and communications services.

## Mineral Resources

The program for the development and conservation of the mineral resources is carried out by the Geological Survey, Bureau of Mines, and the Offices of Coal Research, Minerals Exploration, and Oil and Gas.

The estimate for 1965 is $138,951,000, an increase of $23,219,500 over the $115,731,500 available for 1964.

### Geological Survey

The 1965 budget estimate for the Geological Survey is $69,223,000. This represents an increase of $5,523,000 over 1964, of which $990,000 is for increased pay costs for fiscal year 1964 positions. The program increase of $4,533,000 will permit increased emphasis on investigations and data collection, which are vital to the proper development and management of the Nation's natural resources.

The principal elements of the topographic mapping program will continue during 1965 at very nearly the same rate as for 1964. There will be progress toward completion of standard quadrangle mapping of the Nation, remapping of areas where presently available maps, made many years ago, do not satisfy today's needs, and revising maps where cultural development has made the existing map obsolete. The distribution of the total effort among these major elements is largely determined by the priority requests by map-using agencies in Federal and State Governments. The mapping program is, therefore, a reflection of mapping needs, principally those in commerce, defense and natural resources. For 1965, the estimate of funds is $22,301,000, of which $315,000 is for increased pay costs and $346,000 will allow resumption of work on the National Atlas, a project which began in 1962.

A program increase of $500,000 is proposed for the oceanographic work of the Geological Survey. This will provide $998,000 to enable the Survey to maintain its role of providing geologic and hydrologic support to the Federal interagency oceanographic program.

An increase of $1,250,000 for geologic and mineral resource surveys and mapping includes $265,000 for increased pay costs and $985,000 for the Upper Mantle project, which seeks many types of basic information on the earth's crust, supporting other activities by the Geological Survey and other agencies.

For the conservation of lands and minerals, an increase of $90,000 for increased pay costs and $100,000 for program is budgeted. The program increase will cover the costs of supervising rapidly increasing oil production and prospecting in the Outer Continental Shelves and in Alaska, and the transfer of royalty accounting to an automatic data-processing system.

### Denver Federal Center

Plans are virtually complete for a building at the Denver Federal Center to house activities involving nuclear materials. Funds to begin construction of the building in 1965 are requested in the amount of $1 million.

The budget estimate for data collection and research in the field of water resources, including work in the soil-moisture program, is $20,992,000 for 1965. This represents an increase of $2,092,000, of which $290,000 will be for increased pay costs. The program increase is primarily to accelerate the collection of basic streamflow, ground water and water-quality information to keep pace with the current surge in planning for water-resource development. Financial cooperation with States and municipalities is the traditional basis for most basic data collection. The budget estimate for 1965 includes $10,800,000 to match a like amount offered by the States, to continue at a slightly increased rate these cooperative programs.

### Bureau of Mines

The budget estimate for the Bureau of Mines for fiscal year 1965 is $41,332,000, an increase of $1,841,000 over the adjusted appropriation for fiscal year 1964. After adjusting for increased pay costs, the estimate provides for a net increase of $898,000 for expansion of the Bureau's health and safety and conservation and development of mineral resources programs. In addition $20 million of borrowing authority, an increase of $14 million, is requested to enable the Bureau to carry out its helium conservation program.

#### CONSERVATION AND DEVELOPMENT

For conservation and development of mineral resources the estimate is $30,377,000. This estimate provides for a net program increase of $313,000 over fiscal year 1964. A program increase of $217,000 is requested to start a well-balanced program aimed at overcoming problems caused by the emission of methane gas during mining operations. An increase of $200,000 is requested for research on in situ retotring of oil shale; and $126,000 for new studies to determine the economic significance, methods of recovery, and utilization of marine mineral deposits. A program decrease of $235,000 is reflected in the anthracite program.

#### HEALTH AND SAFETY

For the health and safety appropriation the estimate is $9,530,000. A net program increase of $660,000 provides $140,000 for expansion of the safety education and training program to meet requirements of present-day mining industries and to keep abreast of rapidly changing mining conditions; $370,000 to extend research and development for controlling the float-coal dust hazard; particularly in mechanized coal mines; $150,000 for research to improve mine ventilation; and $100,000 to expedite development of methane-monitoring devices to combat the hazard of mine explosions. A decrease of $100,000 is reflected under this appropriation due to termination of the study to appraise health and safety conditions and practles in metal and nonmetal mines.

### Helium Fund

The budget estimate for the helium fund is $20 million (borrowing authority), an increase of $14 million over the amount authorized for 1964. The $20 million borrowing authority is used, in addition to income received from the sale of helium

and related services, for the production, conservation, purchase, and sale of helium; location and development of helium properties and reserves; and research on the properties and uses of helium to promote its wise and effective use.

COAL, MINERALS, AND PETROLEUM OFFICES

| | |
|---|---|
| Office of Coal Research | $6, 836, 000 |
| Office of Minerals Exploration | 900, 000 |
| Office of Oil and Gas | 660, 000 |
| Total estimate, 1965 | 8, 396, 000 |

The total estimate of $8,396,000 for these Offices is an increase of $1,855,500 over the amount appropriated for fiscal year 1964, but is a decrease of $3,085,385 under the amount available due to carryover balances.

The major part of the increase ($1,761,000) will allow for additional contract coal research.

OFFICE OF COAL RESEARCH

In the relatively short period of its operation, the Office of Coal Research has been able to stimulate the interest of outstanding research organizations, some of whom have previously had no research activities in the field of coal research. As an outgrowth of such interest, proposals have been received from individuals and organizations throughout the Nation.

Within the limitations of prudent operations, the OCR has developed an overall research program which is represented by the projects currently underway and planned through fiscal year 1965. It is estimated that these contract research projects offer the best possibility to achieve technical and economic feasibility within the reasonably short-term future and thus meet the objectives of the Congress and the administration to provide substantive assistance to the coal industry, and all associated with it. At the same time, these projects will, if successful, assist in a very substantial degree the best conservation interests of the Department of the Interior and our country by seeking out the highest potential uses for coal as one of the most abundant and important natural resources with which our Nation has been blessed.

CONTRACT PROPOSAL EVALUATION

The Office of Coal Research, through its own staff, and through the use of the extremely qualified scientists, technicians, and engineers who comprise its various technical consultant panels, seeks to evaluate contract proposals in a manner that assures the selection of projects offering the greatest potential for success, projects that must closely tie into the designs for an integrated total research program, and which seek to avoid any duplication of past or present research. OCR is working in closer cooperation than ever with the Bureau of Mines to avoid any duplication or overlap from this source as well.

It is important to note in this regard that OCR has many more worthy and even urgent projects to do than it has money for. This has compelled a constant screening process in the selection of projects for contracts.

The screening has sought to eliminate any research that might be done elsewhere, whether by the Bureau of Mines or any other research organization; eliminate any research which might be delayed for the time being without serious detrimental effect on other aspects of the OCR program; and selection of projects for contracting where there is the greatest probability of significant impact if the research is successful, and the probability of success of the research itself.

The expanding interest in OCR's contract activities and in coal as a basic raw material resource, by some of the key industrial and educational research organizations has also acted to stimulate internal research within the coal industry.

The OCR program has been instrumental in stimulating expanded activities by the coal industry in seeking out additional export markets. These efforts in recent months have been markedly successful. As a consequence, in addition to the direct benefits that accrue to everyone associated with the coal industry, our country's balance-of-payments problem and gold outflow problem has been lessened. At least part of the credit must accrue to the export market study completed by the Nathan Co. under an OCR contract.

It shall be the continuing endeavor of the OCR and the Department of the Interior to act favorably upon those projects which offer the greatest potential of genuine benefits to the largest segment of the coal industry at the earliest practicable time.

### Office of Minerals Exploration

There is an increase of $50,000 for the Office of Minerals Exploration for financial assistance to participants in the exploration program.

Under Public Law 85–701, the Office of Minerals Exploration stimulates exploration by private industry for domestic sources of minerals by contracting to pay a specified part of the cost of authorized exploration work. Federal funds provided under a contract are repaid with interest by a royalty on production from the property. The program is designed to encourage exploration for long-range mineral reserves rather than to bring new properties into immediate production. The OME also administers the projects with royalty obligations under the program of the former Defense Minerals Exploration Administration.

The level of interest in exploration assistance is expected to continue in 1965. assuring the obligation of the entire amount requested for financial assistance

### Office of Oil and Gas

There is also an increase of $44,500 for the Office of Oil and Gas.

The Office of Oil and Gas is a staff organization primarily responsible for the coordination of Federal oil and gas policies and activities and performs the following functions:

Provides advice and assistance to Federal and State agencies, Members of Congress, congressional committees, industry, foreign governments, and private citizens on oil and gas matters or activities.

Collaborates with the Office of Emergency Planning and the Departments of State and Defense on petroleum problems involved in potential and actual crises in the Far East, the Middle East, and Western Europe.

Participates in the development of petroleum policies and special papers to be used by U.S. delegations at meetings of the Petroleum Planning Committee of NATO and other international organizations.

Conducts regular and special petroleum supply-demand studies, both domestic and worldwide, including data for U.S. and free world economic development and military support programs.

Serves as the principal channel of communication between the Federal Government and the Interstate Oil Compact Commission, State oil and gas regulatory bodies, and the petroleum and gas industries.

### Fish and Wildlife Service

This Service is responsible for research and management programs to conserve fish and wildlife resources of the Nation for recreational and commercial use. The estimate of $74,234,000 is an increase of $2,708,539 over the $71,525,461 available in 1964.

### Bureau of Commercial Fisheries

The estimates for the Bureau of Commercial Fisheries for 1965 total $26,445,000, an increase of $2,467,766 over the amount available for 1964. An additional $2,442,000, to be derived from the Pribilof Islands Fund, is being requested for "Administration of the Pribilof Islands." The increases proposed for fiscal year 1965 will not require any increase in overall Bureau employment over that authorized for fiscal year 1964.

The estimate for "Management and investigations of resources" totals $20,681,000. This represents an increase of $2,856,766 over the adjusted appropriation for 1964, and includes approximately $1.8 million for expansion of oceanographic research conducted by the Bureau as part of the national oceanographic program. The Departments of Navy and Commerce are responsible for the major portion of the national oceanographic program while responsibility for marine biological studies essential to the program are centered in the Bureau of Commercial Fisheries.

Other research programs, important to the health of the American public as well as the future of our country's fishing industry, for which an increase of $720,000 is budgeted are botulism and pesticides studies. Research on *Clostridium botulinum* type E will be conducted in cooperation with other Federal agencies to establish methods of eliminating the public health hazard of botulism poisoning from seafood products. Recent cases of smoked fish poisoning resulted in seven deaths and severe economic injury to the fishing industry.

### Research

Biological research will be conducted to determine the effects of pesticides on aquatic life in its natural environment. Technological research will be conducted to establish when, and under what conditions, pesticides are taken up by fish and shellfish, and how to modify processing procedures to minimize harmful residues in fishery products offered for consumption. These studies will help to eliminate health hazards to the public and protect the economic position of the fishing industry.

### Federal-State Columbia River Fishery Development Program

The Federal-State Columbia River fishery development program designed to offset losses to salmon and steelhead runs resulting from Federal water-use developments in the Columbia River Basin will be continued. The Columbia River salmon runs are a vital part of the highly important and valuable Pacific coast salmon industry. Damage to these runs have been mitigated through construction and operation of hatcheries, fish screens, fish ladders, and stream clearance. The budget includes $588,000 for construction and $2,260,000 for operation and maintenance of facilities for this program.

### Special Foreign Currency Program

The estimate of $300,000 for the "Special foreign currency program" is the same as the 1964 appropriation. It provides for the use of foreign currencies to prosecute research which will benefit the United States.

These programs are investigating the fundamental, long-range aspects of biological and technological problems confronting domestic fisheries. The purpose is to increase the fund of basic knowledge upon which intelligent fishery management programs can be based.

### Fishery Facilities

The estimate for "Construction of fishery facilities" is $4,200,000. This includes $1,000,000 for construction of a shellfish research center at Milford, Conn.; $1,500,000 for the construction of a biological research laboratory for the tropical Atlantic area; $350,000 for scientific equipment for the fishery research vessel for use in the North Pacific Ocean and Bering Sea which will be constructed out of funds appropriated in fiscal year 1964; and $1,350,000 for the construction of a replacement of the exploratory fishing vessel *Oregon* for use in the Gulf of Mexico, Caribbean and tropical Atlantic areas. These projects are essential to the orderly development of the national oceanographic program.

### Administrative Expenses

The estimate of $676,000 for "General administrative expenses" represents an increase of $23,000 over 1964 to provide for increased pay costs for 1964 positions.

The 1965 budget does not include a request for funds under the appropriation "Construction of fishing vessels," resulting in a decrease of $750,000 compared to the fiscal year 1964 appropriation for that item. The program financed under the "Construction of fishing vessels" appropriation will terminate in fiscal year 1964 because of the deadline of June 12, 1963, for the filing of applications for assistance under the program provided in the authorizing legislation (74 Stat. 212).

## Bureau of Sport Fisheries and Wildlife

The estimates for the annual definite appropriations total $47,396,000, an increase of $233,773 over 1964, as follows: "Management and investigations of resources," estimate $34,419,000, increase $3,859,273; "Construction," estimate $3,593,000, decrease $1,650,500; "Advances to migratory bird conservation account," estimate $8 million, decrease $2 million; and "General administrative expenses," estimate $1,384,000, increase $25,000.

The increase in the estimates and amounts becoming available from readjustment of priorities of continuing programs provide for the following urgent items in 1965: $593,781 for costs of the 1964 Pay Act and wage board and employees' compensation increases; $1,079,119 for operation of new fish hatchery, fishery research, wildlife refuge and wildlife research installations and facilities; $315,373 for more adequate management of refuges and replacement and overhaul of aircraft.

### Pesticide Research

A major program expansion in the field of research on the effects of pesticides will be possible with an increase of $1,930,000 for new studies and $1,335,000 for construction of new laboratories at Columbia, Mo., and Denver, Colo. This expansion follows implementation by the President of the report of his Science Advisory Committee on use of pesticides. This report highlighted the increasing dangers from the widespread use of pesticides and the urgency of a step-up in the Government's program to find solution to the myriad of problems stemming from this modern-day phenomenon.

In addition to pesticide research laboratories, the construction program includes $150,000 for work at the Leavenworth, Wash., fish hatchery, $500,000 for plans and specifications for the National Fisheries Center and Aquarium at Washington, D.C., $1,468,000 for development on 12 wildlife refuges and advance planning and $140,000 for wildlife research facilities at Jamestown, N. Dak., and Laurel, Md.

### Migratory Bird Conservation

The $8 million advance to the migratory bird conservation account and $4 million from the sale of duck stamps will support a balanced program of acquisition of 225,000 acres of land for migratory waterfowl of which 85,000 acres will be in refuges and 140,000 acres in waterfowl production areas.

## Water Development

### Office of Saline Water

The total budget estimate for the Office of Saline Water amounts to $12,950,000. This consists of $10,650,000 for the research and development program and $2,300,000 for the operation and maintenance of demonstration plants. The estimate for basic and applied research represents an increase of $650,000 over the appropriation for fiscal year 1964. The estimate for operation and maintenance of demonstration plants is $450,000 more than the appropriation for 1964.

The increase in the request for research funds reflects the desire of the President to develop an accelerated program of basic and fundamental studies in the search for more effective and economical means of saline water conversion as provided in Public Law 87–295, which authorizes $75 million for this work during fiscal years 1962 to 1967 inclusive. The general activities to be pursued include exploratory research, corrosion and equipment studies, extraction and use of byproducts, economic studies, small conversion units, pilot plant construction, and the operation of the research and development test station at Wrightsville Beach, N.C

#### construction funds

Construction funds for five saline water conversion demonstration plants authorized by Public Law 85–883 have already been appropriated. Four of these plants have been completed: a 1-million-gallon-per-day plant converting sea water to fresh at Freeport, Tex.; a 250,000-gallon-per-day plant desalting brackish water at Webster, S. Dak.; a 1-million-gallon-per-day sea water conversion plant at San Diego, Calif.; and a 1-million-gallon-per-day brackish underground water plant at Roswell, N. Mex. A fifth plant designed to produce 200,000 gallons of fresh water per day from sea water is under construction at Wrightsville Beach, N.C. The budget request for fiscal year 1965 will provide funds for the maintenance and operation of these plants and for continuous studies to develop more efficient methods of operation and plant improvements.

## Legal Services

### office of the solicitor

The estimate of $4,173,000 for the legal services of the Department is an increase of $174,000 over the amount available for 1964.

The function of the Solicitor is to provide legal services to the entire Department of the Interior, its bureaus and offices, its many field establishments and the secretariat.

The estimate will provide for increased pay costs, personnel benefits and a strengthening of the staff by filling some vacancies in established positions which is necessary in order to cope with the steadily increasing demand for legal services.

ADMINISTRATION

OFFICE OF THE SECRETARY

The estimate of $4,125,000 is an increase of $269,975 over the funds available in 1964.

The Secretary, the Under Secretary, the Assistant Secretaries, the resources program staff, and the Administrative Assistant Secretary, who provide for the general direction, guidance, and coordination of the bureaus and offices of the Department, are financed from this appropriation. The programs carried on are extremely diversified and have grown in size and importance during the past several years. New and expanded responsibilities and activities have been placed in the Department. It is important, therefore, that the Secretary and his supporting staffs be in a position to give strong direction and guidance, along with the necessary coordination of all programs.

The additional amount requested provides for increased pay costs under the Federal Employees Salary Act of 1962 and for general strengthening in certain areas.

BUDGET CARRIES ESSENTIALS

Secretary UDALL. First I should like to say that this is the fourth time I have appeared before this committee to present a budget. This is the tightest and leanest budget that I have presented by far, Mr. Chairman. It is, of course, in line with the directions of President Johnson that he wants us to tighten up the ship and to get maximum mileage out of each dollar. I want to assure you that this is a budget that has integrity, and nevertheless it is a very tight and lean budget.

I am sure the committee will scrutinize it carefully, but I think that you will find in looking at it that we have here really the bare essentials that we need in terms of funding for our programs.

This is a growing country. Out responsibilities are growing, and yet basically, I think you will find this to be a hold-the-line budget.

BUDGET HIGHLIGHTS

Just to give you the highlights, I am reading now on page 5 of my statement.

The budget request for 1965 is $1,027,667,000—this is $80,186,000 less than the amount included in the 1964 budget as it was first submitted to the Congress.

As to the estimates to be considered in this bill, the 1965 request is $643,617,000. While that amount is $42,650,935 more than the funds appropriated in fiscal year 1964, most of the increase is for what can fairly be described as unavoidable demands. Among the increases are $14 million for helium conservation, $10 million for Guam rehabilitation, $6,515,200 for Indian education, and $5,264,616 for pay cost increases legally effective January 5.

RECEIPTS OF DEPARTMENT

To understand fully the impact of Interior's budget upon the finances of the Federal Government, it is necessary to take into account the substantial revenues produced in the Department's operations. In the period 1962–64, the Department's receipts have ranged from 50 to 80 percent of its expenditures. And in 1965, it is estimated the net receipts of the Department will be $784,728,424, equal to more than 76 percent of the expenditure.

I submit there are few departments that can make that claim. For those departmental activities covered by the estimates of

$643,617,000 in this bill, receipts are estimated at $554,865,000—not including estimated receipts of $125 million from the land and water conservation fund now being considered in the Congress.

I want also to specifically discuss the employment levels, and I have mentioned this on pages 3 and 4 of my statement. I should like to read that to be precise about it. This is always a matter of concern to the committee and, of course, again I stress the fact that so many of our programs, Indians, and parks, and public lands, and with a growing country and growing problems, we do have a heavier load in these areas.

### Attempt To Reduce Employment

The committee will be interested in the steps taken to reduce employment in the Department. You will recall that last year the committee indicated the maximum number of positions the Department might fill under the amounts appropriated for 1964. Not only have we maintained our employment within the number desired by the committee, we have taken action to insure that employment will be below that number.

The Department's end-of-year employment for 1964 is now fixed at 72,342. For 1965 the Department will limit employment to 72,279, which is 63 less than employment for the current fiscal year.

The anticipated decrease below the 1964 level would be greater were it not for the compelling necessity, and we feel we have no choice in this matter, of adding nearly 500 new positions to provide schoolteachers and supporting staff for urgently needed school facilities which will be completed for use in 1965 under the administration's high priority goal to provide educational opportunity for all Indian children of school age.

This will give you some idea again, Mr. Chairman, of the tightness in this area.

### Trust Territories Funding, Pacific

I should like to cover two or three additional highlights with regard to new programs that are upcoming or a special problem.

We are proposing in this budget to fully fund the $17.5 million authorized for the Trust Territories of the Pacific Islands. This, of course, is a special responsibility under the Trusteeship Council of the United Nations. As a matter of fact, there is a mission from the United Nations, as they do regularly every few years, going out to inspect the trust territories now.

We have to move rapidly to prepare these people to make their own way, and to have an economy that is viable, and provide them with education, and we think full funding of this program is highly vital.

### Saline Water Program

With regard to the saline water program, there are not any substantial increases in this program, but I should like to say that I think we are nearing the point where the faith of this committee over the past 12 years in this program, and the moneys that have been appropriated for this big research and experimental program that has been going forward—I think we are nearing the point of a big breakthrough where we can bring the price down, where we can move into large plants.

We are not going to do this by pulling a rabbit out of the hat, but I think technology is reaching the point where we know a lot more than we did know, and I think the big economies are going to come when you move to large plants.

### ONE PLANT FOR PROCESSING WATER

And No. 2, we think the key now, one of the new things that we have decided in the last year and a half is to have one plant. You have to heat water for most of the processes that are involved. You have to have energy to do it.

If you can have one large plant which simultaneously produces electric power which needs high pressure steam to turn the turbines, and water, desalinate water, which needs low pressure steam, you just lead off the low pressure steam and use it, instead of wasting it. This combination will have one plant and will produce cheap power and cheap water simultaneously.

We don't have all the answers yet, but there is an interesting item, that may be a little bit premature, in the press this morning that gives you some idea of what we are thinking about.

### Possible Use of Atomic Energy

Chairman Hayden. The use of atomic energy has been gone into very carefully, I assume.

Secretary Udall. Yes, this is the idea of wedding atomic energy to saline water. This is being considered and this may be very promising in some areas. Where you have other fuel that is available cheaper, you would use that other fuel. But with atomic energy I think these two programs, over the long haul, you are going to find them wedded together more and more.

### Cost of Desalinating Water

Senator Bible. At that point, Mr. Secretary, what is the cheapest that you have been able to produce water from the sea, on a gallon measure or an acre-foot measure?

Secretary Udall. Well, we measure it by the 1,000 gallons, and I think the price now that variously is quoted is particularly for our San Diego plant, which is being moved to Guantanamo. We were very pleased that this could be done.

This plant has been in operation nearly 2 years, and as a matter of fact, this was a plant designed as a 1-million-gallon-a-day plant, Through experimenting with new methods and so on, they actually got the capacity of the plant up nearly to 1⅓ million gallons. If they could have had a larger pump they could have even increased it more. This is out of a plant designed for only 1 million gallons.

I think at maximum operation, the price in the neighborhood of $1 a thousand gallons is what they have been talking about. But we think if you had multiple units of this type of plant, and if you were to go to, say 10 million gallons a day, or 25 million gallons a day, the price is going to break down to 60, 50 and 40 cents as we move ahead, so that we think that we are ready to make the big break below $1.

ECONOMICALLY FEASIBLE COST

Senator BIBLE. At what figure does it become economically feasible for use as either industrial or for domestic consumption?

Secretary UDALL. Well, as far as an area like Key West, Fla., if you can produce 50- or 60-cent water, this is economical. It depends upon the area. In most municipalities in this country and areas where there are not water shortages, I suppose it is in the neighborhood of 15 or 20 cents. But there are other areas of the country where it is dry, and where the price of 30 or 35 cents is economical.

Senator BIBLE. How far are you away from 50 cents per thousand gallons?

Secretary UDALL. I think that we are very close, Senator.

Senator BIBLE. Water at San Diego costs $1 per thousand?

Secretary UDALL. That is right, but this is one small plant, and we think that with the economies of moving to very large plants and of moving to plants which will produce both water and power, that these are going to pull the price down sharply.

COST OF PLANT

Senator BIBLE. What would it cost to build a plant, say near San Diego, to supply that area?

Secretary UDALL. Well, roughly, Senator, with a 1-million-gallon-a-day plant, just sort of a rule of thumb to give you a rough idea, costs about $1 million, or in this neighborhood. This is what the San Diego plant costs, and I think it was something over $1 million.

Chairman HAYDEN. Is it a city or county plant?

Secretary UDALL. This actually is a plant which we built under this special authorization and this committee funded as one of these five experimental plants, and the Office of Saline Water operates it. We have a tie with the city of San Diego and they have been buying the water and paying for it, so that this is a type of combination we have.

MOVING PLANT TO GUANTANAMO

Senator BIBLE. You might comment briefly on the record, as I am sure some members of the committee would be interested, in the Guantanamo decision and the moving of the plant from San Diego to Guantanamo. It might be helpful for the record, Mr. Chairman, if this is all right with you.

Chairman HAYDEN. Certainly.

Secretary UDALL. Well, the Department of Defense and the President and others were confronted with this problem a few days ago. They began looking at a solution, which would be a sound solution. You can barge water in for hundreds of miles, which is what they are doing temporarily, to take care of the situation, but if you want a permanent solution, it was decided that the best solution was to set up desalination right there at the site which would provide the needs of the base.

You know the efficiency of the Seabees, they are still in operation, and it was felt the quickest and best solution was to just bodily pick up the San Diego plant and move it there, and this is underway right now. It is going to be done very rapidly, and this was the first step.

QUESTION OF PLANT CAPACITY

I think probably this plant will not provide the entire amount of water that is needed. They may end up building one or two other units just like the San Diego plant, also at Guantanamo, but I don't think the decision has been made. Nevertheless, the saline water process has reached the point where we moved in and solved a problem of this kind.

Senator BIBLE. This resulted in a complete close down of the San Diego plant?

Secretary UDALL. Yes, it does, except our present plan, we haven't reached the point of final decision on this, is to rebuild and replace it with a new plant.

Senator BIBLE. As I recall, the authorizing law provided for one on the east coast, and one on the west coast, and one on the inland brackish area, and one on the gulf.

Secretary UDALL. Two inland brackish plants, one in South Dakota and one in New Mexico.

PLANT FOR PACIFIC COAST

Senator BIBLE. This means that there will be none along the Pacific coast when this moving is completed?

Secretary UDALL. That is right.

Senator BIBLE. And it is contemplated that you will put another in operation there?

Secretary UDALL. That is right, so we can continue our experimental work there. But we are hopeful that we will move out of this 1 million gallon and less experimental plant stage this year, and move into these large plants.

Senator BIBLE. Does the law permit you to do that? I recall some discussion at the time the amendment was offered to the law, and I thought that they were keeping it pretty much on an experimental pilot plant basis, rather than a full-scale operation.

AUTHORITY FOR LARGER PLANT

Do you have the authority to build a larger plant?

Secretary UDALL. Well, we will have to come to the committees for clearance on anything that we do, but under the latest act, the act authorizing these five demonstration plants, under the Anderson-Aspinall Act of 1951, we do have authority and in fact, we were directed to look toward moving into these larger plants.

If larger appropriations are necessary, and if we can't finance them by having a local municipality or someone else who needs water, provide the main financing, we would have to come back for special authorization by the committee and special funding by this committee.

SOURCE OF FUNDS FOR SAN DIEGO PLANT

Senator BIBLE. Now, in the replacement of the saline water plant at San Diego, would that be a DOD function? Do they provide the money for that?

Secretary UDALL. This is what we are working out, and it is a question of whether Defense, in effect, replaces that plant. I can't give you the details on it at the moment, because we are still working on it.

Senator BIBLE. Thank you, Mr. Chairman.

### Land and Water Conservation Fund Bill

Secretary Udall. One very important new bill that has a bearing, a strong bearing, Mr. Chairman, on this appropriation bill is the land and water conservation fund bill. I want to explain this to the committee, and to be sure that you understand how it will function, if the Congress passes it.

Incidentally, both the House and Senate committees have had hearings on the bill, and the House committee has marked up the bill and it is in the Rules Committee. I understand that Congressman Aspinall has requested clearance by the Rules Committee and this should be granted shortly.

Normally, we would have in this bill money to provide for acquisition of lands for the new park areas, like Cape Cod, and Point Reyes, and so on, and also we would have money in for purchase of inholdings and so on. There is not money in this bill to do that. This money would come out of the moneys that would accrue in the land and water conservation fund bill, as contemplated by the bill that we recommended to the Congress.

The House committee went along with all of these provisions in the bill it wrote up, and this fund would operate in a different way than the reclamation fund, but nevertheless it is an earmarking of funds for conservation purposes. This is one of the few and honorable exceptions in terms of earmarking.

### Revenues Accruing to Conservation Fund

I think conservation does deserve this experimental treatment, but it would provide that all of the receipts and revenues from national parks and from other public lands would go into the fund and would provide that $30 million. That is the 4-cent gas tax that boaters pay into the highway fund, and which is a windfall to the highway fund.

This is about $30 million a year that would go into the fund, and it provides also that the revenues the Government realizes annually from the sale of real property, since this fund is a purchase of real property, would also go into the fund.

However, this is not any kind of "back door" or irregular financing. We will present this to the committee and we will estimate the revenues that will go into this fund, and more than half, or 60 percent of this money will go to the States on a matching fund program for new outdoor recreation effort.

We will present this to the committee and the committee will fully scrutinize it as it does any regular appropriations. In other words, we have designed this to accord with the regular process. The committees have been working on this legislation really for 3 years. This is the third year. We are confident we can get a bill.

### Supplemental Request Necessary

There is still some disagreement on details, but we think these things can be compromised out and we think the experience of the House committee, with them writing a bill, has already indicated we are going to have a bill.

If this legislation passes, we may have to come back in one of the last supplementals in order to carry out the missing elements in this bill which concern the appropriations for acquisition of new park land and of parks.

Senator BIBLE. I happen to wear a second hat in this field, that is as chairman of the Public Lands Subcommittee legislativewise, and we receive many requests from various interested people as to the creation of parks. The price tag, if we were to create all of the parks that are now before us, which have the approval of yourself and your Department, would be in the hundreds of millions of dollars.

### FINANCING IN EVENT OF LEGISLATIVE FAILURE

Now, how are we going to finance those if this land and water conservation fund bill doesn't pass?

Secretary UDALL. Well, the answer, I think, Mr. Chairman, is this: As you well know, because you have been in the thick of this whole fight and you are more familiar than anyone I think in the Congress, except your counterpart on the House side, with all of the new park and national seashore and other proposals that are pending, many of them are costly, just as Point Reyes and Cape Cod were costly proposals.

If this fund bill passes, then it is designed to, and we think will, provide and be a funding mechanism to fund the acquisition of these areas that the country needs, and also to help the States get in this with both feet.

Therefore, we have sort of felt that this bill is needed to run interference and to provide the assurance of financing for this major outdoor recreation effort which has been recommended by the Outdoor Recreation Commission, and which we feel is necessary.

Therefore, I think that you are quite right that unless this bill passes, it does run up a red flag in terms of financing this whole big new program.

### DEFERMENT OF PARK PROPOSALS AND REQUESTS

Senator BIBLE. At that point, I am wondering if we wouldn't be well advised to just put all of the park proposals and all of the requests on the shelf until we see what happens to this. What if this doesn't pass? Will you still ask for the seashores and the recreation areas?

Secretary UDALL. As I conceive it, as I am sure you know, Senator, this is all part of one program, and I think that the fund bill is necessary for us to, in effect, shift gears and to pass a lot of these measures that are needed. In a sense, maybe the Congress should wait and see what happens to the fund bill before it moves on other bills.

I would say this, however: Of course this is exactly what the House committee has done. Last year it spent so much time on this bill that it has passed, I think, very few of the park proposals that the Senate committee has sent over. If the fund bill passes the House soon, I think that they then will begin to move and the Senate at that time can take it up.

I think with the fund bill moving on ahead, you then have the assured financing for all of the proposals that have been submitted and that your committee is considering.

### Canyon Lands Bill

Senator Bible. We have also passed Sleeping Bear Dunes, and we have Oregon Dunes before us, just to mention two that readily come to mind. But you wouldn't advise that we put a rider on the Canyon Lands bill, because they are not acquisitional bills. They are straight-up creations of national parks and seashores.

Secretary Udall. No, I wouldn't Senator. Partly out of my optimism, I think we are going to get some kind of a fund bill and it will have the money in it, but also take a bill like Canyon Land or your Great Basin bill, and some of these created out of the public lands, and there is no land acquisition cost in some of these bills. Some of them are very expensive and some are not.

I personally think that the work that your committee has done up to this point has been very judicious in terms of what has been done.

### Federal-State Action in Water Research

There are just two or three other matters I would like to bring before the committee, Mr. Chairman. One concerns Senator Anderson's bill which passed last year, and this is patterned after, in a sense, the Department of Agriculture program for agricultural experiment stations, which is one of the oldest and most honorable research programs that the Government has.

This is designed to get State action and to coordinate Federal-State action in the whole field of water research. All of the scientists tell us, and all of the people in my Department tell us, and in fact, all of the papers that come across my desk tell me, that we are going to have more and more water problems.

These are water quality problems, as well as water conservation problems of all kinds. We are shorthanded today in terms of hydrologists and water scientists, and with the problems piling up, unless we can get a big effort going in our State universities and our universities to produce water scientists, we are not going to be able to do the job that is necessary.

As to Senator Anderson's bill, the Senate has passed it and the House committee has completed action on it and we think it is going to pass this year. This would provide funds for each of the States to designate either their land-grant university or some other university it they want to, it will be up to the States, to set up water research institutions and each State will get grants and there will also be a general grant program under this act to other institutions for research purposes.

### Possible Supplemental Request on Water Research

This will get the type of effort that we feel is necessary and the the Senate committee felt was necessary, to really get or develop a corps of water research scientists and people so that we can take care of our water problems as they come up.

We think this is very soundly conceived legislation, and the administration has supported it and we think it is going to pass. This is another one that we may be coming back to you on before the session is over to get funds for.

Chairman HAYDEN. This would be a supplemental appropriation?

Secretary UDALL. Yes. I just want to say one other thing generally speaking, and I am sure this committee needs no missionary work on this front.

ATTACK ON POVERTY FOR INDIAN AREAS

The administration is still working on the attack-on-poverty program that the President has laid out. The details will be coming up soon to the Congress. There is one point that we have stressed in our Department. The President himself met with the Indian leaders and put them in the forefront of this attack-on-poverty program.

If we are really going to make an attack on the pockets of poverty in this country, whether you measure it by unemployment rates, education deficiencies, per capita income—you name the standards you want to use—the Indian people in this country will be right at the top of almost any list.

The overall unemployment rate on Indian reservations today in this country is 40 percent. In some instances, it is as high as 70 and 80 percent. This, of course, underscores the need not only for our on-going programs, but for including our Indian people in any poverty program that is presented.

The members of this committee who are from the States where there are Indian people, I want to alert you to this so that we can see that our Indian people and our Indian programs are strengthened to help us do something about this problem.

These are the only matters that I wished to highlight for the committee, Mr. Chairman, and I am happy to discuss any of these matters with you.

SOUTHWEST PACIFIC WATER PLAN

Senator BIBLE. I want to ask the Secretary several questions.

I think early this week you released the revised Pacific Southwest water plan. That included, among other things, the plan for the construction of the southern Nevada water project. Now, when do you anticipate that that proposal will clear the Bureau of the Budget and be transmitted to Congress for appropriate action?

Secretary UDALL. Well, as to the plan which was in the press over the weekend, we were under obligation to file it before the Federal Power Commission, because the Marble Canyon Dam has an application for license pending there, and the Commission had asked us to file a plan and we had to file it.

AMOUNT FOR LARGEST PROJECT

It has been at the Bureau of the Budget and the Bureau of the Budget has been considering it for the past 3 or 4 weeks. This is the largest single water project, I think, in the history of the Bureau of Reclamation.

Senator BIBLE. What is the total?

Secretary UDALL. Therefore, it does deserve close scrutiny.

Well, the first phase of the plan is $1,700 million. This is, of course, patterned after the regional approach, and basin account funding, and based on the upper Colorado project which I am sure all of the members of this committee are familiar with. I would say this, that I think that we are getting very close to clearance and I think it is

just a matter of a few days, and I think probably as soon as the committee schedules a hearing on the water problem in the Pacific Southwest, we should be ready to present the plan to the Congress.

### Inclusion of Southern Nevada Water Plan

Senator Bible. Now, do you consider that the inclusion of the southern Nevada water plan within the broad Pacific Southwest water plan is an approval of that plan within the overall package?

Let me word it the other way. Do you approve the southern Nevada water plan?

Secretary Udall. I think that you will find, and of course we work very closely with the people in your State, that the southern Nevada water plan and the Moapa Valley project are both approved as to their financial feasibility as part of this plan, yes.

Senator Bible. Do you approve it as a separate project?

Secretary Udall. Well, Senator, happily the southern Nevada water supply project, which is a municipal water project which does not need subsidy from electric power revenues, is a project that does not need and does not hinge on the construction of new additional major power dams on the Colorado. This is one which can proceed as part of the overall plan.

If it is necessary at some time in the future to proceed separately on it, it can proceed separately. The Moapa Valley project is in the other category, however. It has to be keyed to a regional plan.

### Urgency of Nevada Plan

Senator Bible. Well, you certainly know of the urgency of the southern Nevada water plan. They are in almost a critical water shortage in southern Nevada, and they have a timetable of 3 or 4 years. I think that each of us who has lived with the Colorado River so many years, as has the distinguished Chairman of this committee, knows that there are still many, many problems in working out not only the Central Arizona project, but also many of the other projects that are envisioned in your long-time project.

The State of Nevada simply can't wait that long to supply water, domestically and industrially, to the users in southern Nevada. I think we just must insist that this project move forward on its own and without delay and at the earliest possible date.

### Regional Approach To Speed Action

Secretary Udall. Senator, the purpose of our devising a regional plan has not been to delay action. It has been to provide a vehicle for action, because this is a region of the country, as you are very familiar with, where you have had the biggest water fight in the West, and it has been going on for many years.

We think that we have put something together, and we have worked very closely with the Governors and water experts in all of the States, and that this is an action plan and it can move forward this year if everyone will get behind it. I am aware of the special problem that you have, and we think that the regional approach is the best approach, and it will be the most successful approach in the lower Colorado just as it was in the upper Colorado area.

RENEGOTIATION OF HOOVER POWER CONTRACTS

Senator BIBLE. Now, is there any attempt being made to renegotiate the present Hoover power contracts?

Secretary UDALL. No; not at the present time.

Senator BIBLE. There is none at the present time?

Secretary UDALL. No, sir.

Senator BIBLE. Necessary contracts are effective until 1987?

Secretary UDALL. They are 25-year contracts.

Senator BIBLE. There is no attempt to renegotiate those in order to pick up some extra revenue to subsidize part of this overall project?

Secretary UDALL. No. It is, however, an essential part of our plan that after the payout of Hoover Dam and Parker-Davis, that these dams would then go to work for a basin fund. This is an essential part of our plan.

Senator BIBLE. Well—but if I understand you correctly, there is no attempt to do that; and I doubt, as a lawyer, that you could do it prior to 1987.

Secretary UDALL. This is a contractual matter, and we couldn't, and we are not talking about it and this isn't involved in the plan in any way.

Senator BIBLE. And there is no attempt being made by the Interior Department to attempt to renegotiate these contracts prior to 1987?

Secretary UDALL. That is correct.

Senator BIBLE. Thank you.

MANPOWER CUTS

Senator MCGEE. I am sorry to be a little late. It is another case of one of these overlapping meetings this morning, but I have been disturbed, or at least apprehensive, about the manpower cuts that you are effectively working out in the Department of the Interior.

The reason I am disturbed about it is that I see your Department, Mr. Secretary, as the most potentially significant one in our whole economic base expansion in this country. I would think that at a time like this, when we are seeking to strengthen our economic roots, and to bring in greater resources so that we have a stronger economy, that you ought to be expanding.

I understand that you have spelled out a little bit how you are still able to continue to do that with the cuts that have been required of you. I wondered if you could address yourself to that for just a moment.

THREE-YEAR INCREASE IN EMPLOYMENT

Secretary UDALL. I did discuss this, Senator, before you came in, and I would like to say, generally speaking, we have gone through an expansion and a growth period during the last 3 years. I think that our employment is up from about 55,000 to 72,000 during the past 3 years.

Our responsibilities are growing, and the country is growing, and Congress builds new schools or opens new parks or gives us additional responsibilities in administering public land or authorizes additional reclamation projects, and of course, there has to be an expansion.

TIGHT POLICY THIS YEAR

What we are basically doing this year, however, is having a year when we deliberately set out to run a taut ship, and to do our very best in terms of trying to get better utilization of our manpower and greater efficiency. We think we can do it.

I wouldn't want to say to this committee that I think we can do it 2 or 3 years running, but I think at least up to this point this has been an exercise in efficiency that has been well received in the Department. I think we are getting good cooperation from our bureau chiefs, and I think that we can get more efficiency out of existing manpower.

But I think that you are quite right, and I made the point in the beginning, that if our responsibilities are going to grow, if the country is going to grow, inevitably we would have to have some increases. But I think that we can do this job this year. We certainly had a very good response from the field and from all of our people up to this point.

Senator McGee. I fully appreciate the fact that you are going to be able to meet your obligations this year with this kind of a conservation of manpower and this tightening of the screws. I think we ought to have every ounce of efficiency that we can command.

DANGER OF PENALIZING GROWTH RATE

What disturbs me is the momentum. Momentum becomes a long-range thing, and I know of no department of our Government in which the momentum that has begun under your leadership is more critical. I am a little disturbed at the prospect that in an attempt to tighten the screws, in an attempt to make sure that it is ultraefficient, we may penalize our growth rate economically.

NEED TO KEEP UP WITH NATIONAL EXPANSION

I don't know of any section of the country that holds a greater promise for the future of the whole Nation than the West with our resource potential, which is specifically under your jurisdiction. That is why I am very cautious about anything that will slow it down.

We are exploding so fast in our other responsibilities as a nation, and internationally, that unless we can at least keep even with that, and even ahead of it would be better, we are going to penalize our national effort, and our security effort, and our economic growth effort, and our prosperity effort, and our standard of living, and everything rides on our being able to move fast enough in the West.

As you know best of all, we can't bring in more water or new water conservation projects just by an act of Congress. We can't do it in 1 year, and we can't do it in 5 years, and we can't bring in a new breakthrough in new uses for coal, even though we are pecking away at that. It is on a pitifully small scale in my judgment. We can't prove out a lot of these things for tomorrow. We must take the long view—10 years or 15 years.

I appreciate the fact that your point of view is difficult to sell to the Congress when they are looking at a budget for 1 year, until they can get past an election. But I would hope we would not let that narrow our base so much that we are going to penalize ourselves the year after the election. I think the Nation's future depends too much on a long view.

EFFECTIVENESS NOT JEOPARDIZED

Secretary UDALL. Well, my feeling up to this point, Senator, because this is an attempt to get maximum efficiency, is that we can do this without impairing our effectiveness and our ability to discharge our responsibilities. I point out to you, the Bureau that had the largest number of employees in our Department, and this isn't all due to things like automation, is the Bureau of Reclamation.

What they submitted to me initially, and from the beginning before we entered into the economy drive, actually involved a very small cut of personnel. As a matter of fact, the Bureau of Reclamation, and this will interest you, which I think has something in the order of 11,400 employees, has about 8,000 less than it did in 1950. Yet it is carrying a heavier workload.

This is due, I think, to overall increase in efficiency, and again, once you have a bureau or agency that is running on a tight basis, it is hard to squeeze it any further. But at the same time, this does show you how by better utilization of manpower, and by more efficiency, that you can do a bigger job with fewer people in some areas.

Senator MCGEE. Thank you.

RECREATION FACILITIES NOT UNDER DEPARTMENT

Senator BIBLE. I had only one further question, Mr. Secretary, and maybe this is better developed through Mr. Crafts or Mr. Hartzog, but I have been intrigued for some time by the effort of the Bureau of Land Management, and maybe this is developed by Mr. Stoddard, for increased recreational facilities within the public domain that is not under the control of either the Park Service or the Department of Agriculture or the Forest Service.

Do you have a program outlined in that area, and how costly will it be? You made some effort to obtain some money for it a year ago, and I don't know what effort you are making in this present budget.

Secretary UDALL. This is one of the areas that has been a little distressing to me in some of our States, particularly in Nevada, as a prime example, where 87 percent of the land is in public ownership. Oregon and California are also areas where this problem is acute and Arizona has some problems, with this explosive growth of population.

In many of these public land areas which have very fine outdoor recreation potentials, the development of at least some minimal facilities or having at least some management becomes extremely important. I think that I discussed this matter, and I think the record will show it, with this committee 2 years ago, and I am not sure I didn't discuss it 3 years ago.

EARLIER REQUESTS FOR FUNDS

We had requests and the budget approved modest requests, I think, on the order of $700,000 for a beginning program in this field.

Senator BIBLE. At that point, do you have the legislative authority to proceed on these public domains in this manner?

Secretary UDALL. This is where the dispute arose, because our people, or my people, my solicitors, have been of the view all along that as far as the management of the public lands, we have just as much authority as, for example, the Forest Service has.

REASON FOR DENIAL OF FUNDS

The Forest Service has had outdoor recreation programs for years, and fine ones and good ones. They have no special bill that authorized them to do this. They have a general authorization in the management of lands for overall purposes. Yet there were some members of the other body, your counterpart committee and others, who took the view that we had no authority, and therefore, we were denied the appropriations on that basis.

That was true in the past. Yet, it is still our view that this is necessary. I am sure that you are familiar with some of the specific situations where we should be doing something, and I foresee that in the future exploiting the outdoor recreation potential of public domain lands is one of the big opportunities we have to do this outdoor recreation job.

The Forest Service can't do it all, and the Park Service can't do it all, and many of these areas are located closer to communities and large cities. Either we leave it there with no development, with no management, and a mess develops, which it is already, or we have a program.

It is our view, and I would be very happy to have my people go into it with the committee staff, we believe we do have authority.

FUNDS FOR SANITATION AND PROTECTIVE FACILITIES

Senator BIBLE. Do you request money for that in this budget?

Secretary UDALL. We have $1 million for construction of sanitation and protection facilities in the public lands.

Senator BIBLE. Is that the same thing?

Secretary UDALL. Well——

Senator BIBLE. Or is that just disguised a bit?

Secretary UDALL. Well, it isn't expressed in terms of outdoor recreation. It is expressed in terms of taking care of public health problems of people who use the public domain, and maybe the committees will see it in this light, where we couldn't get them to see it when we are talking about outdoor recreation.

Senator BIBLE. You are asking for the same thing, but you are asking for it under a different name? This is going to be the end result, and this is what you asked for last year, in general. I am not saying whether you are right or wrong, but there has been a point raised that you don't have authority to do it and I think that the committee should go into this.

I don't want to labor the point, because I am advised that this will be brought up or will be opened up when the Director of the Bureau of Land Management appears before us, as he does tomorrow morning.

DEPARTMENTAL POWER IN PUBLIC LANDS

Secretary UDALL. We have very broad powers to manage the public lands, and we manage them, particularly these grazing lands, for many purposes, as this committee well knows. I can simply say to you that there is a problem. These lands are being used, and

they are owned by the public, and the public can use them, but the question is in terms of public health, and in terms of protecting scenic values, and in terms of access, and everything else.

Are we going to let this thing continue helter-skelter on an unmanaged, unplanned basis, or are we going to do something about it and protect the public rights and the public health and so on?

So I think that you are correct in saying that this is roughly the same idea we are expressing, and we are talking a little bit more in terms of public health than in terms of outdoor recreation, but I must say in terms of reality it is the same thing.

I want to be honest with the committee.

Senator BIBLE. Thank you.

U.S. GEOLOGICAL SURVEY UNITIZATION SECTION, TRANSFER TO CASPER, WYO.

Senator MCGEE. Mr. Secretary, as you well know, the U.S. Geological Survey centers a great deal of its activities in the public lands States, particularly in my State of Wyoming where nearly 50 percent of the land area is a part of the public domain.

Casper, Wyo., in particular, is a focal point of activity since this area is recognized as the oil center for the Rocky Mountain region. Many persons and groups in the Casper area who are directly and indirectly involved with the public lands have advised me that present USGS forces there are inadequate. A particular grievance seems to be the location of the USGS Unitization Section far away from the public lands in Washington, D.C.

How many personnel are utilized in this Unitization Section?

Secretary UDALL. At the present time there are four full-time employees and two part-time employees in the Washington headquarters Unitization Section.

Senator MCGEE. Is it true that while they are located in Washington, D.C., the functions and work performed involves most immediately the public-land States?

Secretary UDALL. The work of the headquarters Unitization Section involves public lands, Indian lands, acquired lands, and offshore lands. The leases in these lands are located in 43 States including Alaska, and are predominantly on the public domain.

Senator MCGEE. Would not the services of this section be far more useful and beneficial to the people involved if it were centered in the area it serves?

Secretary UDALL. Action on unit plans is initiated in the regional offices, such as the office located in Casper, and work in the Washington office is limited to review for coordination and final processing. Due to the present organizational structure of the Department, and due to the widespread location of the leased lands, and the diversity of procedures involved in servicing the different types of land, we believe that Washington possesses the beneficial aspects of a centralized location, even though its geographical location would seem to negate this.

Senator MCGEE. What would be the cost of transferring this section to Casper, Wyo.?

Secretary UDALL. The cost of transferring the Unitization Section to Casper must be measured not only in the cost of transferring personnel and records and space costs but also indirect costs of training replacement personnel, the awkwardness of operating a coordinated

program at a location remote from headquarters, and the inconvenience to the public in traveling between Casper and distant parts of the country.

Senator McGEE. What, if any, major problems would be raised by such a relocation?

Secretary UDALL. The relocation of the Unitization Section to Casper would present several major problems. Perhaps the most serious of these would be the disruption of prompt and ready communication with the Director, the Solicitor of the Department, and my Office not only on the part of Survey representatives but of industry representatives as well.

Senator McGEE. Would this transfer, then, in your opinion, be feasible in view of the benefits to be derived by the persons affected in Wyoming and other Western States?

Secretary UDALL. Such a transfer is not considered to be feasible, for we doubt that there would be benefits derived from such a move except perhaps for a few operators located in or near Casper.

Chairman HAYDEN. If there is no further business, the committee will stand in recess until 10 a.m. tomorrow morning, when we will hear the Bureau of Land Management.

(Whereupon, at 11 a.m., Wednesday, February 19, 1964, the committee recessed, to reconvene at 10 a.m., Thursday, February 20, 1964.)

# DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1965

THURSDAY, FEBRUARY 20, 1964

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, D.C.*

The subcommittee met at 10 a.m., pursuant to recess, in room 1223 of the New Senate Office Building, Hon. Carl Hayden (chairman) presiding.

Present: Chairman Hayden, Senators Bible, McGee, Bartlett, and Mundt.

## DEPARTMENT OF THE INTERIOR

### BUREAU OF LAND MANAGEMENT

**STATEMENTS OF CHARLES M. STODDARD, DIRECTOR OF THE BUREAU OF LAND MANAGEMENT; ROBERT E. WOLF, ASSISTANT TO THE DIRECTOR; JAMES P. BEIRNE, ASSISTANT DIRECTOR, ADMINISTRATION; MARK B. WELT, BUDGET AND FINANCE OFFICER; EUGENE V. ZUMWALT, ASSISTANT DIRECTOR, RANGE AND FOREST MANAGEMENT; IRVING SENZEL, CHIEF, DIVISION OF LANDS AND RECREATION; CHARLES E. REMINGTON, CHIEF, DIVISION OF ENGINEERING; JOHN E. DAWSON, BUDGET OFFICER**

#### RECEIPTS OF BUREAU OF LAND MANAGEMENT

Chairman HAYDEN. The subcommittee will come to order.

This morning the committee will study the budget estimate of the Bureau of Land Management for fiscal year 1965. As usual, I wish first to place in the record a table showing receipts to the Bureau of Land Management, by sources, and another table showing the distribution of these receipts to the various States during fiscal year 1963.

(The tables referred to follow:)

#### RECEIPTS BY SOURCES

The following table shows actual receipts of the Bureau of Land Management for fiscal years 1961, 1962, and 1963, and the estimated receipts for 1964 and 1965.

| | 1961 | 1962 | 1963 | 1964 | 1965 |
|---|---|---|---|---|---|
| Sales, public lands and materials | $4,250,000 | $3,581,482 | $3,382,561 | $3,400,000 | $3,400,000 |
| Fees and commissions | 2,476,549 | 2,849,944 | 3,004,406 | 3,000,000 | 3,000,000 |
| Mineral leasing | 109,677,284 | 117,062,197 | 118,562,815 | 120,000,000 | 124,130,000 |
| Mineral leasing, Outer Continental Shelf | 7,304,687 | 11,612,151 | 366,814,447 | 183,000,000 | 272,000,000 |
| Grazing fees | 2,982,188 | 2,780,252 | 4,027,587 | 4,890,000 | 5,170,000 |
| Right-of-way leases | 209,724 | 203,575 | 256,598 | 250,000 | 250,000 |
| O. & C. and Coos Bay timber sales | 29,866,075 | 32,070,557 | 31,261,912 | 37,300,000 | 34,000,000 |
| Other timber sales | 2,259,682 | 2,664,923 | 2,367,012 | 2,400,000 | 2,400,000 |
| Miscellaneous receipts | 219,968 | 692,421 | 1,015,322 | 951,000 | 951,000 |
| Total | 159,246,157 | 173,517,502 | 530,692,660 | 355,191,000 | 445,301,000 |

*Allocation of Bureau of Land Management receipts to States, fiscal year 1963*

| State | Sales of public lands and timber | Mineral leases and permits | Taylor grazing leases | Taylor grazing districts | Other | Total |
|---|---|---|---|---|---|---|
| Alabama | $310 | $3,069 | | | | $3,379 |
| Alaska | 11,510 | 8,446,127 | | | | 8,457,637 |
| Arizona | 8,345 | 206,659 | $25,008 | $14,584 | | 254,596 |
| Arkansas | (27) | 93,709 | | | | 93,682 |
| California | 56,958 | 2,649,677 | 44,139 | 6,755 | | 2,757,529 |
| Colorado | 8,893 | 3,321,165 | 8,437 | 16,389 | | 3,354,884 |
| Florida | 59 | 110 | | | | 169 |
| Idaho | 18,164 | 203,727 | 7,234 | 30,087 | | 259,212 |
| Illinois | 2 | | | | | 2 |
| Kansas | | 157,675 | 19 | | | 157,694 |
| Louisiana | 93 | 114,909 | | | | 115,002 |
| Michigan | 98 | 3,627 | | | | 3,725 |
| Minnesota | 5,881 | | | | | 5,881 |
| Mississippi | | 11,397 | | | | 11,397 |
| Missouri | 4 | | | | | 4 |
| Montana | 9,769 | 2,111,577 | 24,006 | 21,661 | [1] $57,888 | 2,224,901 |
| Nebraska | | 8,064 | 97 | | | 8,161 |
| Nevada | 38,622 | 146,676 | 7,764 | 58,218 | | 251,280 |
| New Mexico | 12,708 | 9,499,757 | 6,111 | 40,667 | [1] 2,465 | 9,561,708 |
| North Dakota | 40 | 399,284 | 2,205 | | | 401,529 |
| Oklahoma | 43 | 83,811 | 318 | | | 84,172 |
| Oregon | 47,047 | 2,163 | 12,283 | 25,331 | [2] 15,259,969 | 15,346,793 |
| South Dakota | 645 | 105,460 | 11,030 | | | 117,135 |
| Utah | 4,611 | 3,772,121 | | 31,776 | | 3,808,508 |
| Washington | 657 | 1,243 | 4,681 | | | 6,581 |
| Wisconsin | 60 | | | | | 60 |
| Wyoming | 5,490 | 14,066,013 | 55,618 | 39,574 | | 14,166,695 |
| Total | 229,982 | 45,408,020 | 208,950 | 285,042 | 15,320,322 | 61,452,316 |

[1] Executive Order 10787 of Nov. 6, 1958, from grazing.
[2] From O. & C. lands, $15,031,270; Coos Bay wagon road lands, $228,699.

Chairman HAYDEN. Also, I will place in the record the highlight statement furnished to the committee by the Bureau.

(The statement referred to follows:)

HIGHLIGHT STATEMENT

Selective expansion in programs to conserve the public lands characterizes the budget for fiscal year 1965 for the Bureau of Land Management. Areas of special emphasis are:

1. An adequate program for immediate rehabilitation of burned over areas;
2. Completion of forest inventories so that all forest resources of the public lands can be managed on a sustained-yield basis;
3. Construction of sanitation and protection facilities on certain public lands where public use is intensive;
4. Construction of fire control facilities at Anchorage, Alaska, to increase the efficiency of firefighting operations. Construction will be completed in 3 years.
5. A major revitalization of road and facilities maintenance programs so that existing roads and facilities can be used safely and investments made in them will be protected.

These developments along with adjustments in going programs are aimed at further improvement in public land management consistent with the increasing value and importance of the resources of these lands. One further element characterizes this budget: The program of improved resource management it incorporates will be performed although total Bureau employment will be reduced slightly below the fiscal year 1964 level as revised downward during the preparation of these estimates. Greater effectiveness by each employee will be necessary and will be achieved.

PUBLIC LAND MANAGEMENT

The past fiscal year has produced considerable progress in public land management:

1. The moratorium on the filing of certain types of applications for public lands was ended on September 1, 1962. The number of pending "land" cases in the land offices has been reduced from 40,000 to 15,000, and a distressing backlog

condition of 15 years standing was eliminated. Personnel previously required to service this backlog have been shifted to other work, including reassignments to district offices where they can contribute directly to the on-the-ground performance of multiple-use resource management.

2. Grazing fees were increased by 50 percent, providing a more reasonable return to the U.S. Treasury and funds for the development and maintenance of range improvements. The range adjudication program was emphasized and reached the 80 percent completed stage by the end of the year.

3. The Bureau joined with other land management agencies in prompt reaction to the Columbus Day forest blowdown of 1962 in the State of Oregon which involved over 1 billion board feet of timber under its administration. Special crews were assembled, emergency regulations issued, and other forest needs deferred in order to offer the timber for sale before it lost value and became the breeding ground for insects and endangered remaining stands to fire.

4. Efforts to halt deterioration of public lands were accelerated, as the conservation of soil and moisture remains of prime importance to the management and use of western natural resources. For example, over 200,000 acres were seeded, bringing the total seeded area to almost 3 million acres since 1935. However, 12 million acres remain in need of such treatment.

5. Extensive projects were conducted in 37 eligible areas under the accelerated public works program. In addition to advancing the conservation programs for these areas, 359 man-years of employment were provided in fiscal year 1963 to unemployed individuals in those localities.

The current fiscal year already has been marked by significant developments. The prodigious task of offering the windblown timber in Oregon has been completed. While administration of the cutting contracts remains, the forestry program now can begin to rebalance efforts as it recovers from the disruptions caused by the emergency sales program.

A new program of designating resource conservation areas has been initiated. Road construction projects have been started under the new program, public land development roads and trails, authorized by the Federal Aid Highway Act, 1962. This program is expected to provide more adequate road systems which are a basic essential to all resource management programs for the public lands.

### Management of Lands and Resources Budget

The budget for fiscal year 1965 under the operating appropriation, "Management of lands and resources," is summarized below:

| | |
|---|---|
| Appropriation, 1964 | $44, 152, 500 |
| Transfer to General Services Administration | −86, 000 |
| Total amount available 1964 | 44, 066, 500 |
| Net program increases | 931, 500 |
| Pay raise requirements | 449, 000 |
| Total program 1965 | 45, 447, 000 |

The amounts shown above for 1964 and 1965 are exclusive of supplemental appropriations for fire suppression costs which will be proposed during each year as required.

This Bureau strives for economy in all its operations. With the increases in conservation programs, some increases in personnel have been necessary. However, personal services has become a decreasing portion of the estimates, even including pay raise costs, as shown in the following table:

*Comparison of personal services and total program management of lands and resources (exclusive of fire suppression)*

| Year | Total program | Personal services | Percent of total program |
|---|---|---|---|
| 1960 | $24, 095, 000 | $15, 271, 000 | 63.4 |
| 1961 | 27, 709, 000 | 17, 235, 000 | 62.2 |
| 1962 | 32, 704, 000 | 19, 236, 000 | 58.8 |
| 1963 [1] | 40, 775, 000 | 23, 537, 000 | 57.7 |
| 1964 estimate [1] | 43, 666, 000 | 24, 960, 000 | 57.2 |
| 1965 estimate [1] | 45, 047, 000 | 25, 735, 000 | 57.1 |

[1] Includes costs of pay raises authorized by Public Law 87-793.

### Utilization of Manpower

New methods are explored and adopted when found to be practical. For example, hoversight techniques have been adopted in surveying in Alaska which permits the Bureau to double its survey accomplishments with the same manpower.

The Bureau currently is undergoing an organizational analysis with the assistance of the director of the Institute of Administrative Research, University of Washington. A major purpose of this study is to obtain more effective utilization of manpower. This report is expected shortly. In the meantime the Bureau has consolidated the division of lands and minerals and the land offices in several States, and in one instance consolidated the land office with a district office. Land examiners and mining engineers have been moved from State office headquarters to field locations in order to get higher production at less travel costs. Four field administrative offices have been consolidated into two in order to perform larger workloads with essentially the same total staffs.

The conservation work that is needed on the public lands serves as a constant challenge to the personnel of the Bureau to make the most of the financial and manpower resources that are available. Further economies that do not sacrifice sound accomplishments are sought continuously.

Revenues from public lands have exceeded the costs of administration by a ratio of 8 to 1 during the past 150 years. Gross receipts for all years through 1961 totaled more than $2.5 billion; of that total, the receipts of the last 15 years accounted for $1.5 billion. The cost of managing the public domain during the same 15-year period was $185 million.

### Background of Director

Chairman Hayden. Mr. Charles Stoddard is the Director of the Bureau of Land Management, having assumed that position since the committee considered the budget estimates for the last fiscal year. Mr. Stoddard, will you please tell the committee something about yourself and then proceed with your presentation, either by highlighting your written statement or by reading it, as you prefer.

Mr. Stoddard. Do you want me to give you a brief statement of my background, Senator Hayden?

Chairman Hayden. Yes.

Mr. Stoddard. Well, I am trained in forestry. My home is in Wisconsin. I worked for some years before the war with the Forest Service. Since the war, I was in consulting forestry work and land management work and I own and operate a tree farm in northern Wisconsin, which I have had now for 28 years.

I have worked for Resources for the Future, a research foundation in this field as a member of the staff for 5 years. During the past 3 years, until last June 1, I headed the Secretary's Resources Program Staff in the Department of the Interior.

I have a brief statement which I will place in full in the record and highlight it, if that is your pleasure.

Chairman Hayden. Very well.

(The statement referred to follows:)

### Statement of Charles H. Stoddard, Director, Bureau of Land Management

Mr. Chairman and members of the committee, we are here today to discuss the budget request for fiscal year 1965 needed to administer essential programs on over 465 million acres of public lands. This request involves no increases in manpower for the Bureau.

These lands are of increasing importance both for the renewable and nonrenewable natural resources which they supply to the economy and for their public use role essential to present and future western land needs.

This Bureau performs several land management functions, some of them exclusively on the lands administered by the Bureau, others on lands also administered by other agencies.

The Bureau acts upon private and public efforts to secure needed public lands for development.

The Bureau performs essential services for other agencies through programs such as the cadastral survey operations.

The Bureau, in cooperation with Geological Survey, is responsible for leasing of mineral resources.

The resources of these BLM lands contribute significantly to the economy of the Nation.

Approximately 1.35 billion board feet of timber and other forest products will be made available in 1965, resulting in receipts estimated at $36.4 million. Forage for over 10 million head of livestock is furnished for part of their annual requirements, generating grazing fees estimated at $5.2 million in 1965. Mineral leasing, especially of oil and gas, will bring in $124 million exclusive of the Outer Continental Shelf.

As a result of these revenue producing operations, payments to State and counties in 1965 are expected to exceed all operating appropriations for the Bureau by about $10 million. In addition, deposits to the reclamation fund will exceed Bureau appropriations by more than $3 million.

The operations of this Bureau contribute significantly to the economy, to the support of local and State government in the West, to resource development, and to the maintenance of lands available for future use and development which is of increasing importance in view of the rapid growth of our population.

### BASIS FOR 1965 BUDGET

This 1965 budget is based on:

1. Sustaining programs for sound resource management with emphasis upon economy in all operations;
2. Initiating a program of constructing sanitation and protection facilities essential to protect public health and safety in the use of the public lands;
3. Adequate funds for the prompt rehabilitation of burned over lands;
4. Increased funds to maintain roads, buildings, and other facilities on a businesslike basis.

## MANAGEMENT OF LANDS AND RESOURCES

The estimate for 1965 for the appropriation "Management of lands and resources" is $45,447,000, an increase of $1,380,500 over the amount available for 1964. A third of this increase provides for the increased pay costs for 1964 positions as authorized by Public Law 87-793.

The moratorium on certain types of land cases permitted the Bureau to reduce a longstanding problem and last year a reduction in funds for land office operations was proposed and effected. We are actively engaged in developing further streamlined procedures, simplified regulations, and operating economies and we now propose a further reduction in this budget for anticipated savings in 1965. Part of these savings is planned to aid with land classification work essential for orderly disposal and management and for records improvement projects. However, the overall program reduction in lands and minerals activities is $109,500 in these estimates. Improved public land disposal procedures, only possible if basic acts are revised or repealed, would provide over a period of years for further real economy.

### GRAZING LANDS

A program increase of $70,000 for management of grazing lands is proposed to continue intensive efforts to complete privilege adjudication by July 1, 1967, and to improve the management of wildlife habitat. Over 10 million head of livestock owned by 29,000 ranching operations and close to 1½ million deer, antelope, and elk which attract millions of hunters depend partially upon the public lands for forage. Steady progress is being made in the cooperative use and conservation of the rangelands.

### FORESTRY ACTIVITY

A program reduction of $326,000 is proposed for the forestry activity. This is the net result of several factors:

1. Financing the entire cost of forest management in western Oregon from this appropriation;
2. Financing all requirements of forest development and protection in western Oregon from the O. & C. grant lands appropriation;

3. An increase of $75,000 in the program for forestry work on public domain lands.

On this basis funds for management, development, and protection of forests in western Oregon approximate the 1964 level. However, the cost to this appropriation on a program basis is reduced by $401,000.

Public domain forestry outside of western Oregon is increased by $75,000 to provide for completion of forest inventories and reforestation surveys and to reduce the existing large reforestation backlog. These requirements will be met partially by economies in forest protection in Alaska. The completion of forest inventories for these lands outside of western Oregon is the first essential step to sound forest management and the development of optimum revenues.

### CADASTRAL SURVEY

The cadastral survey program is at the same financial level as in fiscal year 1964 although a large backlog of needed work exists. This program also has benefited in recent years from the application of advanced techniques to permit a performance of greater volume of work per dollar appropriated. For example, through the application of Hoversite techniques it is now possible to survey almost twice the area as with electronic equipment and five to six times the amount possible with customary ground methods. While these techniques are particularly useful in Alaska in the State selection program, their applicability to surveying problems in the Western States is being investigated to insure that latest technical advances are used wherever applicable. Again this is a program where savings are translated into the accomplishment of larger workloads.

### REHABILITATION OF BURNED-OVER AREAS

An increase of $600,000 is requested to provide more adequately for the prompt rehabilitation of burned-over areas. The soil and moisture program otherwise will be continued at the 1964 level. The appropriation for 1964 included $250,000 for rehabilitation of burned-over lands. Due to several major fires, especially in Idaho, this amount proved inadequate. Consequently the 1965 budget proposes a total of $850,000 for this purpose which should meet rehabilitation needs of a normal fire year.

### Resource Conservation Areas

The Bureau has initiated a program of resource conservation areas to identify areas of special need where much can be accomplished with strengthened local cooperation.

### ROADS AND BUILDINGS

Increases proposed for the maintenance of access roads and physical facilities are needed to enable the Bureau to protect these assets on a businesslike basis. Until recently roads and buildings have deteriorated for lack of maintenance. With the 1965 program over 1,100 miles of Bureau roads will be restored to useful condition. Sanitation and protection facilities constructed over the last 2 years under the accelerated public works program will be maintained and the maintenance needs of Bureau offices, warehouses, fire lookouts, and other structures will be more adequately met.

### Construction Appropriations

The estimate for the construction program is $1,400,000 which will provide a $1 million program for the installation of minimum-type sanitation and protection facilities in carefully selected areas and $400,000 to initiate construction of the Anchorage fire control facilities. Public use of Federal lands for fishing, hunting, camping, and similar activities is widespread and growing. It presents the Bureau with a host of complex problems. The land is there—the people go to it and use it. In certain areas use is so extensive that health, pollution, and safety hazards to the public and resources now exist. The Bureau will continue to stress all other means available to it, including the Recreation and Public Purposes Act, to encourage local authorities to provide facilities and to channel public use and prevent misuse.

### ANCHORAGE FIRE CONTROL FACILITIES

The first phase of the Anchorage fire control facilities is scheduled for construction in 1965 at a cost of $400,000. Present plans are to complete these

facilities in 3 years at a total cost of $1,100,000. These facilities will replace a collection of former CCC buildings and quonset huts, which are exorbitant to heat and maintain, with an efficient and modern station from which fire control operations can be conducted on an economical and effective basis.

#### ACCESS ROAD PROGRAM

An amount of $2 million is requested as liquidating cash for the access road program, public lands development roads and trails. The budget contemplates use of only half of the new obligational authority provided by the Congress for fiscal year 1965 in the Federal Aid Highway Act of 1962. Liquidating cash provided in 1964, the first year of this program, is sufficient to meet little more than one-third of the obligations to be incurred in that year. This request for $2 million should meet the balance of the obligations to be incurred in 1964 as well as those obligations in 1965 which will require expenditure in that year. Normal lags in expenditures are rather limited because most of the Bureau's projects are small and contractors frequently can initiate and complete projects in the same fiscal year.

#### RECEIPTS UNDER O. & C. GRANT LANDS APPROPRIATION

The estimate of receipts to be available in 1965 under the O. & C. grant lands appropriation is $8,250,000 including $1 million for transfer to the Forest Service. This appropriation will continue to provide for access road and recreation facility construction and maintenance. It also will provide for all forest development and protection work in the O. & C. area as explained previously. Last year $540,000 of the cost of forest management was paid from the O. & C. grant lands appropriation. This budget substitutes all of one item, forest protection $700,000, and $150,000 of reforestation in the O. & C. grant lands appropriation while handling all of forest management in management of lands and resources. The net result is that each element is financed completely from one of the appropriations. These shifts of items require an additional $310,000 in 1965. This factor, together with an overall reduction in estimated receipts, reduces the available funds for road construction in 1965.

### Manpower and Fund Utilization

The Bureau is intensifying efforts to achieve maximum performance of its responsibilities with the manpower and fund resources made available to it. The moratorium on land applications allowed the Bureau to reduce a longstanding problem, streamline its land operations, and make actual reductions in funds and manpower used to run the land offices.

Technical advances are permitting us to improve the performance of cadastral survey workloads especially in connection with the State selection program in Alaska.

#### SALES OF BLOWN-DOWN TIMBER

The Bureau handled the salvage sales program for blown-down timber in western Oregon by reprograming its work. This was disruptive to normal forest management during the emergency and the task remains of establishing management plans, inventories, and other measures to restore forest management to a sound and balance program.

The increases in maintenance funds will restore Bureau roads and facilities to useful condition, thereby contributing to the efficiency of day-to-day operations. Range survey techniques are being carefully reviewed to see if ways can be found to achieve more significant results for the same or even less cost. Field examiners, mining engineers, and cadastral surveyors are being moved from State offices to field stations to save travel costs and reduce time in reaching assignments.

#### CONSOLIDATION AND AUTOMATION

Consolidation of field administrative offices and automation of payroll and other selected administrative tasks have helped to meet the rapidly expanding load of general administrative work in support of the enlarged resource management program of the Bureau. However, workloads in this area appear to be outrunning available internal remedies.

In summary, all aspects of the Bureau's operations are being examined and reexamined for ways to gain more efficient and economical performance that

more effectively fulfills the Bureau's mission and the President's economy directives.

ORGANIZATIONAL ANALYSIS

In this regard the director of the Institute of Administrative Research, University of Washington, was engaged in June to work with the Bureau to provide a thoroughgoing organizational analysis of its operations and determine whether organizational adjustments can be made that are consistent with the Bureau's responsibilities and with its objective of constantly obtaining better use of manpower and funds. Present indications are that it may be possible for the Bureau to substantially increase its effectiveness by a further decentralization of effort in the field and a realinement of the central office staff.

In the last decade the Bureau has been reorganized in the traditional sense of the word three times. We will not be attempting a reorganization in the traditional sense in this operation, but instead we will be realining the structure of the Bureau and clarifying the roles of its principal people and offices so as to achieve greater efficiency and economy while at the same time maximizing the program output. The goal will be for operating functions to implement more effectively defined programs essential to carrying out the Bureau's mission.

In our efforts to insure optimum utilization of funds particular attention has been paid to payroll requirements. Personal services are a decreasing portion of the estimates despite the additional pay raise costs authorized by Public Law 87-793. Personal services which were 63.4 percent of the operating appropriation in 1960 were reduced to 58.8 percent in 1962 and are estimated to be down to 57.1 percent in 1965. Operating experience will continue to be analyzed and the committee is assured that further savings will be effected whenever proposed changes are supported by the facts. However, due to the nature of the Bureau's operation and the widely scattered lands, we believe we now are near the lowest ratio that can be achieved.

REVENUES AND INVESTMENTS

Receipts for 1965 are estimated at $445 million of which $69 million will be paid to States and counties in which the lands are located. Receipts continue to be many times the amount of the investment in the resource management and development programs conducted by the Bureau. As the preponderance of these receipts is generated through the leasing of nonrenewable resources, such as oil and gas, it is important that investment in the management and development of the renewable resources of the public lands be made on an orderly and adequate basis so that the public lands can continue to contribute significantly to the national economy and substantially to the economies of many western regions and localities.

The estimates presented for 1965 represent modest and orderly steps toward conserving and sustaining the resources of the public lands and assuring their appropriate disposal as in recent years.

FORESIGHT OF COMMITTEE ON LAND PROBLEMS

Mr. STODDARD. This committee has been very farsighted in its handling of the public land problem, in the making available to us of funds for special rehabilitation work in Wyoming and South Dakota last year, and in previous years in Idaho, Nevada, New Mexico, and Oregon, which has made possible the acceleration of rehabilitation of ranges and application of soil conservation measures on specific areas of severe need.

Since this is my first appearance before your committee as Director, I would like your permission to give a few more of these facts before we go into the basic details.

WORK UNDER BUREAU JURISDICTION

We have, as you know, over 400 million acres under our jurisdiction in the 12 Western States and Alaska. We have a dedicated group of professional people, forestry, range, soil conservation, engineering,

and many other professions. As an example of their dedication, last year when the timber salvage job took place, or was required as a result of the blowdowns in Oregon, all hands came to the rescue and put in long and arduous hours of work in order to expedite the program of timber salvage.

This program is moving along very, very well and it is well on its way to completion before we will have possible serious outbreaks as a result of insect damage in the residual stands.

### Outmoded Land Laws

One of our problems is that we do have a number of old and outmoded land laws, and complicated procedures which do add heavily to our costs of doing business. We are required to follow the law, but we have been actively exploring every feasible opportunity to eliminate unnecessary work.

The changes that should be made can occur only after the Congress has dealt with these laws specifically, and we have a number of studies which are going to be helpful, I think, to the Congress in resolving policy questions with respect to the management and disposal of public lands.

### Administration of Rangeland

One of the major problems that we have is in the administration of 180 million acres of rangeland, and I can assure you that too much of it is in a low condition of productivity. This land is not only important to the economy of the western ranchers and the communities in which they live, but it is also vital for the watershed values that are present on these lands that are needed as a basis for the water supplies of the growing population in the West.

### Improved Watershed Conditions

Through the assistance of the committee, again we have been able to apply many conservation measures which have resulted in improvement of the watershed conditions, reduction of silt, and increase of water yields, as for example, in the elimination of juniper and replacing it with grass. We accomplish two things there. There is a greater water yield and a greater yield of forage.

A few personnel have done a great deal to obtain the maximum of conservation benefits for the dollars that have been appropriated.

### Size of Public Domain Areas

One of the problems we have in the administration of the public domain lands is the sizes of the areas that have to be served out of our district office. The average district has 2.8 million acres of public domain which is interspersed with about 4 million acres of other private and Federal lands.

Consequently, our employees must travel or cover around 600,000 acres per field employee. It is a very thin administrative allocation. It is 600,000 acres, about equivalent to Connecticut and Rhode Island combined, so this is a big job for each fieldman.

RANGELAND ADMINISTRATION

In the field of rangeland administration, a tremendous body of regulations has been developed which I believe can be simplified, but because of past history and experience it is quite evident that simplification will require close effort and cooperation with the users of the land.

We are trying to develop a program which does work with the users, in defining some of the problems that they have with us, and we with them to try to eliminate some of these obstacles in order to have a better working relationship.

One regulation, for example, gets off into the area of petrified wood. We propose a limitation of the taking of petrified wood so there will be some in the future. We did set up a proposed regulation last year which wasn't quite precise. It was fitted to what some of the people thought would be a way of regulating their activities.

CORRESPONDENCE REACHING BUREAU

We got about 3,000 letters in the Bureau with suggestions and protests and so on, and perhaps you got some of them also, Senator. This gave us an indication of the interest that there is by another group in the public land.

We receive nearly 300,000 pieces of correspondence in a year, and this, of course, ties down tremendous numbers of man-hours, and it is a very expensive thing. Some of this, I think, through careful analysis can be reduced as we improve our ways of giving service to the public, so that the people will know what their opportunities are and what their rights are, and what they are not. So there will be some changes to cut down this influx of correspondence.

These are just a few items which I wanted to mention in terms of background of our problems and what we are trying to do about them, Senator.

BUDGET ESTIMATES OF 1965

Chairman HAYDEN. It is very proper that you should, because you have problems, there is no doubt about that at all.

I shall place in the record statements in justification of the budget estimate for "Management of lands and resources," in the amount of $45,447,000. This is $1,294,500 more than the appropriation provided in fiscal year 1964.

(The statements referred to follow:)

## Bureau of Land Management

*Management of lands and resources*

| | | |
|---|---|---|
| Appropriation, 1963 | $41, 510, 200 | |
| Supplemental appropriation, 1963 | 2, 900, 000 | |
| Total appropriation, 1963 | | $44, 410, 200 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration | | −348, 335 |
| Total available, 1963 | | 44, 061, 865 |
| Appropriation, 1964 | | 44, 152, 500 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration | | −86, 000 |
| Total available | | 44, 066, 500 |

### Summary of Increases and Decreases, 1965

| | | |
|---|---|---|
| Lease and disposal of land and mineral resources: | | |
| To provide for increased pay costs for fiscal year 1964 positions | +151, 600 | |
| Decrease in title, lease, and records program | −230, 000 | |
| To continue inventory and evaluation of land and mineral resources and records improvement programs | +120, 500 | |
| | | +42, 100 |
| Management of grazing lands: | | |
| To provide for increased pay costs for fiscal year 1964 positions | +68, 000 | |
| Increase will provide for continuation of resource inventories, adjudication of grazing privileges, and resource inventories on public grazing lands | +76, 000 | |
| Decrease in fire presuppression program | −6, 000 | |
| | | +138, 000 |
| Forestry: | | |
| To provide for increased pay costs for fiscal year 1964 positions | +85, 000 | |
| Increase in forest management and development programs on public domain and western Oregon lands | +680, 000 | |
| Decrease in forest protection program, Alaska | −82, 000 | |
| Transfer of O. & C. forest protection and development programs to Oregon and California grant-lands appropriation | −924, 000 | |
| | | −241, 000 |
| Cadastral surveys: To provide for increased pay costs for fiscal year 1964 positions | | +45, 100 |
| Soil and moisture conservation: | | |
| To provide for increased pay costs for fiscal year 1964 positions | +70, 300 | |
| To provide increased funds for rehabilitation of burned-over lands | +600, 000 | |
| | | +670, 300 |
| Maintenance of physical facilities: To provide for increased maintenance costs, including sanitation and protection facilities | | +222, 000 |
| Maintenance of access roads: To provide for increase in maintenance of roads on the public domain | | +475, 000 |
| General administration: To provide for increased pay costs for fiscal year 1964 positions | | +29, 000 |
| Net increase, 1965 | | 1, 380, 500 |
| Budget estimate, 1965 | | 45, 447, 000 |

## MANAGEMENT OF LANDS AND RESOURCES

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 | | |
|---|---|---|---|---|
| | | Total appropriation | Transfers [1] | Amount available |
| 1. Lease and disposal of land and mineral resources | $9,775,106 | $10,403,900 | −$46,000 | $10,357,900 |
| 2. Management of grazing lands | 5,547,273 | 6,052,000 | −18,000 | 6,034,000 |
| 3. Forestry | 8,303,326 | 8,938,500 | −12,500 | 8,926,000 |
| 4. Cadastral surveys | 4,387,430 | 4,904,900 | | 4,904,900 |
| 5. Soil and moisture conservation | 10,842,309 | 11,265,200 | −9,500 | 11,255,700 |
| 6. Fire suppression | 2,370,247 | 400,000 | | 400,000 |
| 7. Maintenance of physical facilities | 153,767 | 178,000 | | 178,000 |
| 8. Maintenance of access roads | 25,210 | 225,000 | | 225,000 |
| 9. General administration | 1,741,006 | 1,785,000 | | 1,785,000 |
| Unobligated balance lapsing | 916,191 | | | |
| Total | 44,061,865 | 44,152,500 | −86,000 | 44,066,500 |

[1] Represents transfers to General Services Administration unless otherwise footnoted.

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. Lease and disposal of land and mineral resources | $9,775,106 | $10,357,900 | $10,400,000 | +$42,100 | +$151,600 | −$109,500 |
| 2. Management of grazing lands | 5,547,273 | 6,034,000 | 6,172,000 | +138,000 | +68,000 | +70,000 |
| 3. Forestry | 8,303,326 | 8,926,000 | 8,685,000 | −241,000 | +85,000 | −326,000 |
| 4. Cadastral surveys | 4,387,430 | 4,904,900 | 4,950,000 | +45,100 | +45,100 | |
| 5. Soil and moisture conservation | 10,842,309 | 11,255,700 | 11,926,000 | +670,300 | +70,300 | +600,000 |
| 6. Fire suppression | 2,370,247 | 400,000 | 400,000 | | | |
| 7. Maintenance of physical facilities | 153,767 | 178,000 | 400,000 | +222,000 | | +222,000 |
| 8. Maintenance of access roads | 25,210 | 225,000 | 700,000 | +475,000 | | +475,000 |
| 9. General administration | 1,741,006 | 1,785,000 | 1,814,000 | +29,000 | +29,000 | |
| Unobligated balance lapsing | 916,191 | | | | | |
| Total | 44,061,865 | 44,066,500 | 45,447,000 | +1,380,500 | +449,000 | +931,500 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

## BUREAU OF LAND MANAGEMENT

*1. Lease and disposal of lands and minerals resources*

| Subactivity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Title, lease, and records service | $5,646,220 | $5,785,700 | $5,650,000 | −$135,700 | +$94,300 | −$230,000 |
| (b) Field examination and classification | 3,500,645 | 3,871,000 | 4,000,000 | +129,000 | +45,500 | +83,500 |
| (c) Records improvement | 628,241 | 701,200 | 750,000 | +48,800 | +11,800 | +37,000 |
| Total | 9,775,106 | 10,357,900 | 10,400,000 | +42,100 | +151,600 | −109,500 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

(a) *Title, lease, and records service*

The estimate of $5,650,000 is a decrease of $135,700 consisting of:

(1) A decrease of $230,000 as a result of improved operations;

(2) An increase of $94,300 to provide for increased costs in fiscal year 1965 of the pay raise authorized by Public Law 87-793.

*Plan of work.*—During fiscal year 1963 lands and minerals case backlogs were further reduced due largely to increased efficiency of operations and continued emphasis upon case processing as top priority work. The table which appears below shows that there was less than a 1-percent increase in total filings during fiscal year 1963 (as compared with an increase of over 13 percent during fiscal year 1962). Certain regulatory changes and more clearly established criteria for classification action are chiefly responsible. It is expected that the total number of new mineral filings will increase substantially through fiscal year 1965 while the total number of new lands filings will decrease slightly over the same period. Backlog reductions should continue with the greatest percentage decrease being reflected in lands cases. The accomplishment by both this Bureau and the Forest Service of Public Law 167 proceedings is expected to result in a decrease in minerals casework in certain areas.

| | 1962 actual | 1963 actual | 1964 estimate | 1965 estimate |
|---|---|---|---|---|
| Cases pending, start of year | 94,252 | [1] 57,770 | 53,510 | 46,517 |
| New and reactivated cases | [1] 357,862 | 360,365 | 379,007 | 368,483 |
| Cases closed | [1] 394,344 | 364,625 | 386,000 | 374,000 |
| Cases pending, end of year | [1] 57,770 | 53,510 | 46,517 | 41,000 |

[1] Amended by reinventory of Arizona, July 1, 1963.

NOTE.—The above table includes both lands and minerals filings.

Simultaneous oil and gas filings account for the preponderance of the totals. In lands, for example, pending caseloads were reduced from nearly 18,000 to 14,500 cases during fiscal year 1963.

Casework is current in most States. Where case backlogs remain, plans are to get on a current basis for all but a few areas by December 31, 1964. New regulations and instructions have simplified the filing, classification, and protest procedures under the public land laws. To more effectively manage classification activities, this authority has been delegated to district managers. Priority attention will be given to all applications filed under the Recreation and Public Purposes Act and State selections. Reductions are due to improved techniques in handling the necessary records and other service requirements attendant to Government-motion activity, and in meeting demands by the public and other governmental agencies for lands, general services, and information.

Improved office procedures have made it possible to process the increasing volume of simultaneous oil and gas lease offers, now being received at an average rate of 20,000 filings per month. Resulting filing fees average some $200,000 each month. With the prospective opening to simultaneous filing of new areas in Alaska (approximately 16 million acres), the 1964 and 1965 rate is expected to increase. Continued vigilance in the detection of irregularities in filings will be stressed. Programs are being developed to focus attack upon continued abuses such as dummy filings, and disregard of acreage limitations. With the funds requested for fiscal year 1965, the Bureau will step up the training of personnel to detect and investigate suspected abuses in those States where simultaneous filing activity is heaviest.

Public requests for land title and status data, information regarding land use and acquisition, and information on the processing of pending petition applications constitute a significant workload. In addition, decentralization of certain lands and minerals operations to the district offices requires increased technical assistance to the districts. The growing interest in the public lands and their resources is reflected in the increasing number of personal and written inquiries from individuals, groups, and governmental entities. A general increased interest is being expressed in the States of California, Idaho, and Nevada in outdoor recreation opportunities on BLM lands. This has become a large factor in increased Bureau's public service activities in both the land and district offices. The funds requested would permit maintenance of the necessary records and public service activities in the appropriate offices.

Continued emphasis is being given to satisfaction of nearly all State selection grants outside of Alaska by the end of fiscal year 1965. In Alaska, unless the State changes its plans, all State selection applications on hand will be brought to a current basis by that time, and field examination and adjudication will be completed on 15 million acres filed through fiscal year 1964. Emphasis will also be placed upon making available land possessing agricultural potential outside of Alaska under present State water policies. The exchange program will be directed toward meeting urgent Federal and State needs. Selected small tracts and townsites will be offered in areas of highest demand when suitable land is available. To improve efficiency, the Bureau will initiate more land classification, sale, lease, and exchange actions on its own motion in order to meet public and private demands and to make tenure adjustments consistent with sound land management.

(b) *Field examination and classification*

The estimate of $4 million is an increase of $129,000 over 1964 consisting of:

(1) An increase of $83,500 to continue efforts to inventory and evaluate the land and mineral resources of the public lands;

(2) An increase of $45,500 to provide for increased costs in fiscal year 1965 of the pay raise authorized by Public Law 87–793.

*Need for increase.*—An increase of $83,500 is needed to continue efforts to inventory and evaluate the land and mineral resources of the public lands. Completion of detailed land use and planning studies as a distinct phase of the general inventory and initial evaluation of the public lands and resources is targeted for the end of fiscal year 1966. An inventory of all suspected occupancy and agricultural trespass will be maintained. Continued stress will be placed upon a thorough outdoor recreation inventory and evaluation of all BLM land, and upon making suitable sites available to State and local governments under the Recreation and Public Purposes Act. Special efforts will be made in the identification, preservation, and management of recreation, scenic, wildlife, archeological and historical values, and petrified wood deposits. The additional funds requested would help the Bureau to meet these goals.

The initial analysis phase of the minerals inventory program is nearly completed, and fiscal year 1965 will provide the base for refinement of data in the detailed or continuing analysis phase of the inventory. At that time analyses will be required for proper evaluation of data collected during the course of the inventory and field examinations.

The Bureau anticipates that land trespass abatement programs established in fiscal year 1964 will be fully operative during fiscal year 1965. These programs will be designed to eliminate existing cases and to move rapidly against any new cases of unauthorized use or occupancy. Emphasis will be placed upon completing use arrangements for all remaining occupants of mining claims in accordance with the Mining Claims Occupancy Act. Suspected minerals trespass investigations will continue to receive high priority attention during fiscal year 1965. Sales of mineral materials will increase steadily, with concurrent increased attention to surface use and rehabilitation, contract management, and appraisal.

*Plan of work.*—Field investigations needed for casework processing will be conducted on a current basis. The lands and minerals activity is geared for prompt response to public demand requirements with the investigation of all such cases given top priority.

Initial analyses are identifying areas requiring intensified land tenure adjustments and lands available to meet the needs of heavy population and economic pressures. In this connection the Bureau expects to develop action programs of sale, lease, and tenure adjustment where priority needs have been identified, complete identification of public lands that are suitable for exchange, and encourage exchanges with other governmental agencies. Approximately 200,000 acres will be reviewed under the withdrawal review program which is an integral part of the master unit system. This work must be done in close cooperation with States and legal governmental units and other Federal agencies.

By the end of fiscal year 1965 the Bureau expects to have completed approximately 70 percent of the inventory of recreation and related wildlife values. Initial site plans will be prepared for lands in need of high priority Federal recreational development. The needs for related wildlife habitat improvement will be identified. Cooperation, coordination, and negotiation with Federal, State, and private agencies and organizations concerned with the recreational use of BLM lands will be stressed. Appropriate cooperative arrangements will be worked out with State recreation and fish and game agencies, and BLM will continue to make land available under the Recreation and Public Purposes Act. Action programs leading to necessary tenure adjustments will be consistent with multiple-

use management of recreation and wildlife recoursces and with other resource management programs. BLM land will be managed so as to protect the identified scenic, scientific, recreational, archeological, and historical values from vandalism, deterioration, damage, or destruction. Bureau construction programs will be harmonized with the management, protection, and development of ourtdoor recreation resources. Efforts will be increased to carry out responsibilities for providing public access to public lands.

(c) *Records improvement*

The estimate of $750,000 is an increase of $48,800 consisting of:

(1) An increase of $37,000 to maintain a program level sufficient to complete this program by fiscal year 1968;

(2) An increase of $11,800 to provide for increased costs in fiscal year 1965 of the pay raise authorized by Public Law 87–793.

*Need for increase.*—The increase requested will provide $750,000 for this program in fiscal year 1965. It is presently estimated that at this level of operations the records improvement program can be completed by 1968.

*Plan of work.*—The Bureau has now located records improvement personnel at Littleton, Colo. The construction of new records for Wyoming has been initiated in fiscal year 1964 and will be completed in fiscal year 1965. Preparatory work for the Oregon records will be initiated in fiscal year 1964 and the records completed by the end of fiscal year 1965. Preparatory work will be initiated for Colorado records in fiscal year 1965.

*2. Management of grazing lands*

| Subactivity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Administration of grazing lands | $4,471,340 | $4,933,500 | $5,072,000 | $138,500 | +$62,500 | $76,000 |
| (b) Fire presuppression | 1,075,933 | 1,100,500 | 1,100,000 | −500 | +5,500 | −6,000 |
| Total | 5,547,273 | 6,034,000 | 6,172,000 | 138,000 | 68,000 | 70,000 |

[1] To provide for increased pay costs for 1964 positions.

(a) *Administration of grazing lands*

The estimate of $5,072,000 is an increase of $138,500 consisting of:

(1) An increase of $46,000 to provide acceleration of range resource inventories, dependent ranch property surveys, and range use adjustments to meet the longstanding goal of completing grazing privilege adjudication by July 1, 1967;

(2) An increase of $30,000 to intensify and improve the management of wildlife habitat;

(3) An increase of $62,500 to provide for increased costs in fiscal year 1965 of the pay raise authorized by Public Law 87–793.

*Need for increase.*—The grazing administration program and the increases planned for it, are designed to bring about more intensive management of the 178 million acres of publicly owned rangelands administered by BLM. Sound management provides the basis for conservation and improvement of the land, for orderly multiple use, and for a sustained yield of forage for use by wildlife and domestic livestock.

Scientific range management is essential to the prevention of range deterioration, and the conservation of soil, water, plant, and animal resources. Much of the depletion in the past has been due primarily to a lack of management. Proper management is an absolute necessity if public and private investments on soil and water rehabilitation treatments are to accomplish their purposes. It also will encourage private effort and investments toward the improvement of range and associated private resources. The public ranges are an important source of forage for many big game herds and for nearly 29,000 livestock ranches. Ranches using the public range supply large numbers of feeder animals to the Nation's feedlots and meat markets. They also are the basis of an important segment of many local and regional economies.

At present the public ranges are depleted and are producing less than their potential capacity. Over 84 percent has been found to be in only fair or bad

condition. Recent studies show that 64 percent is not improving while 18 percent is deteriorating. Only 18 percent is improving.

Considerable progress has been made in recent years, but a great deal remains to be done. The increases requested will permit accomplishment of the following goals during 1965:

(1) Range resource inventories on about 26 million acres of Federal lands. As of the beginning of fiscal year 1965 there will be about 33.5 million acres still needing such inventories. These inventories provide data and information on present and potential forage production, and they are an important basis for both the adjudication of grazing privileges and long-term management. Also included is a modest expansion of range resource evaluations in Alaska to form a basis for management of critical reindeer and wildlife habitats as well as land usable by domestic livestock.

(2) Dependent property surveys necessary to determine the base property qualifications of 1,050 ranching operations for grazing licenses and for permits on the public lands. This work is prerequisite to the adjudication of grazing privileges.

(3) Completion of adjudication of grazing privileges for 2,100 ranch operations of the 3,400 for which such work will remain to be done after the close of fiscal year 1964. Adjudication, the apportioning of present and potential public land grazing capacity among dependent ranch units, is an essential step toward effective management. Completion of this step makes possible sound range management and rehabilitation and encourages cooperative investments in the public land.

(4) Intensified supervision of range use. Effective management of the public ranges requires that the range be used by the best suited class of animal (domestic or wild), in the proper season, and in proper numbers. Use by too many animals and in the wrong seasons have been the basic causes of range abuse and depletion. Use supervision assures the public and the permitted users that the resource is not being abused or overgrazed. It also helps provide for greater beneficial use through attention to effective grazing systems, animal distribution, and production practices. Good range management coupled with needed investments will enable the public range, for example, to eventually carry double the present number of livestock.

The increase requested will be used largely to insure that investments in resource rehabilitation are not wasted through improper use, and to curb overuse of ranges already deteriorating.

(5) Intensify and improve BLM management of wildlife habitat. Recently it has been estimated that 1,330,000 deer, 130,000 antelope, 22,000 elk, and various other wildlife species derive a substantial portion of their annual forage from the public lands. The importance of wildlife use is increasing; for example, deer on the public lands have increased about 15 percent per year for the last two decades. Even more significant is the fact that with an increasing population more and more people are turning to hunting and fishing as a form of outdoor recreation. Growing wildlife population and public use needs increase the requirement for improved management and rehabilitation of wildlife habitat on public lands. The States regulate hunting, but the Bureau is responsible for the public land game habitat.

*Plan of work.*—Long-range objectives of grazing administration are to provide for maximum sustained multiple use of the range resources. This entails the application of sound range management techniques, practices, and methods that will provide for the proper use, protection, and improvement of the range and will also provide for the maximum sustained yield of forage for use by livestock and wildlife in balance with the other needs and uses of the land.

Range resource inventories and dependent property surveys must be completed by the end of fiscal year 1966 as they furnish basic data required for range adjudication. Adjudication, scheduled for completion by July 1, 1967, will provide a base for accelerated range management. Intensified management practices, based upon adequate studies and investigations, will provide for maximum use, and will shorten the time required to restore production of depleted areas. Following the completion of each range adjudication, more intensified range management should be coupled with cooperative investments for resource rehabilitation and development.

Range condition and trend studies will be continued. They provide part of the basic data needed to guide yearly and long-term range management decisions.

Range resources in Alaska will be studied, appraised, and managed with the objective of providing the greatest sustained contribution to the wildlife resource and livestock economy of the area.

Range management activities will be expanded and intensified within established resource conservation areas and special project areas. This will provide a basis for improving methods and techniques of application, cooperation, and coordination of range management activities with other programs involved in a concerted effort of total resource management and rehabilitation.

(b) *Fire presuppression*

The estimate of $1,100,000 is a decrease of $500 consisting of:

(1) A decrease in program of $6,000 due to pay raise costs of $5,500 and $500 reduction of estimate;

(2) An increase of $5,500 to provide for increased costs in fiscal year 1965 for pay raise costs authorized by Public Law 87-793.

*Plan of work*—Hazard reduction consisting principally of snag felling and flash fuel disposal will be accomplished on 3,000 acres. Some 2,000 miles of firebreaks and truck trails will be developed and maintained to alleviate fire hazards along roadways and in areas of heavily concentrated public use. Increased incidences of man-caused fires require fast access for men and equipment to take prompt and effective control measures.

Special emphasis will be placed on training regular fire control personnel and fire suppression crews in the modern techniques of fighting forest and range fires. The Bureau has played and will continue to play a leading role in the development and operation of departmentwide fire training schools and in participation with other agencies in training schools covering fire weather, supervision, and air suppression methods. An intensified program of public fire information and education, investigation, and enforcement is contemplated also.

In addition, we plan the orderly replacement of obsolete fire conyrol communication equipment and all other types of fire equipment and tools, extension of detection and reporting systems for faster action on fires, and the development of more comprehensive fire plans.

*3. Forestry*

| Subactivity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Western Oregon lands | $4,358,981 | $4,550,900 | $4,200,000 | −$350,900 | +$50,100 | −$401,000 |
| (b) Public domain | 3,944,345 | 4,375,100 | 4,485,000 | +109,900 | +34,900 | +75,000 |
| Total | 8,303,326 | 8,926,000 | 8,685,000 | −241,000 | +85,000 | −326,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

(a) *Western Oregon lands*

The estimate of $4,200,000 is a decrease of $350,900 from the amount available for fiscal year 1964 consisting of:

(1) An increase of $523,000 to return the financing of forest management work entirely to this appropriation;

(2) A decrease of $774,000 to eliminate financing of protection work from this appropriation;

(3) A decrease of $150,000 to eliminate partial financing of reforestation work from this appropriation;

(4) An increase of $50,100 to provide for increased costs in fiscal year 1965 of the pay raise authorized by Public Law 87-793.

*Need for increase.*—The increase requested for forest management is more than offset by the decreases related to forest protection and development work in western Oregon. The result will be to finance all of forest management out of this appropriation while protection and reforestation will be financed entirely from the appropriation, Oregon and California grant lands. The forest management program will be reduced slightly below the fiscal year 1964 program level. Receipts deposited to the general fund of the Treasury will be approximately twice the amount requested for management.

The appropriation, "O. & C. grant lands," provides an amount equivalent to 25 percent of gross receipts to be reimbursed from receipts. That appropriation has been used to invest in the development of these lands through the construction and maintenance of roads and recreation facilities, and reforestation. It is proposed that all nonmanagement requirements of western Oregon forestry in fiscal

year 1965 be paid from that appropriation. Consequently, forest development and protection programs are eliminated from this estimate. Reductions total $924,000, or $401,000 more than the program increase of $523,000 required to entirely finance forest management from this appropriation.

*Plan of work.*—The salvage operation in western Oregon resulting from the October 12, 1962, and the subsequent March 27, 1963, windstorms caused major curtailment in all forest management activities in favor of timber sales. The change in emphasis was necessitated to quickly sell damaged timber before its value dropped as well as to reduce the imminent danger of disastrous insect and fire outbreak. These activities need to be brought back into balance with the sales program. Although final determinations have not been made, it appears certain that at least 6 of the 22 forest management areas will require complete reinventorying and recomputation of a new allowable cut. The stability of local industries and communities partly depends upon the availability of Bureau of Land Management timber. The fiscal year 1965 program is directed at the restoration of all phases of the forestry program which have been disrupted by the emergency salvage program and the continued offering of the full allowable cut.

Orderly management suffered a serious setback as a result of the windstorms. For example, the carefully analyzed and delineated pattern of cutting, developed over a period of years, encompassing entire forest drainages, must be redone. The remnants of residual green stands left in the more seriously damaged areas of the storm path pose a major technical challenge in fitting them into an orderly management-disposal plan. These isolated blocks represent the only natural seed source in many areas and their perpetuation and preservation inject greater complexity into the orderly development of the forest property.

Another significant problem is the necessity to integrate mainline systems of roads constructed prior to the windstorms with portions of the roads constructed to extract the salvage material and redetermine future road construction needs. The large number of salvage roads and firebreaks made necessary has opened up more country to a recreation-minded public, increasing the burden of providing for their needs and protection as a facet of the multiple-use program.

During fiscal years 1963 and 1964 inventory work was at a standstill. Many of the sample plots established for the July 1962 inventory have been destroyed or lost and will require reestablishment. A full reinventory program must be undertaken on those severely overcut forest-management areas. If substantial reductions in cutting levels are required by sustained-yield policies special efforts are needed to prorate remedial adjustments over an optimum period so as to minimize local economic dislocation. It is estimated that the overcut will be approximately one-half billion board feet, which represents almost 50 percent of the timber cut from these lands in a normal year.

Access needs for fiscal year 1965 are anticipated to be 270 easements and agreements involving approximately 230 miles of road. While the number of easements and agreements will be less, the negotiations will be more time consuming and difficult because of the loss of prenegotiation time, as well as the reluctance of private landowners to grant necessary access for timber that does not carry the compulsion for extraction as did the salvage timber. The pressure of public opinion materially aided in acquiring access during the emergency program.

Granting of access is the furnishing of rights to cross lands or use roads of the Federal Government. As the Federal road program expands, adjacent landowners are stimulated to develop and harvest the resources of their own lands. The granting of access not only is time consuming but, by its nature as a service to the public, it often takes precedence over other programed work. It is expected that cooperators will require 290 new access permits over more than 530 miles of road. The anticipated increase is due to the inability of the many small intermingled landowners to salvage their material as rapidly and expeditiously as the large landowners and Federal agencies. In many instances the principal roads had to be developed before smaller operators could reach their holdings.

During fiscal year 1963, 114 confirmed trespass cases were closed, but 87 new confirmed cases were brought to light resulting in a net reduction of only 27 cases. The penetration of new and remote areas for the salvage timber has uncovered additional trespasses. To meet the 1967 deadline for elimination of the backlog of trespass cases will require processing of an estimated 122 confirmed cases in fiscal year 1965, valued at approximately $128,000, and an additional 202 suspected cases on which an undetermined value will be received. Although cases closed show an increase in revenue, old cases are more difficult

to successfully prosecute and there is a commensurate increase in the cost of processing as a result of having delayed action because of the salvage program.

Timber sale offerings will be 1.1 billion board feet, chargeable against the allowable cut of 1,127 million, and 100 million board feet of salvage and thinning material not chargeable to the inventory, giving a total estimated sales program of 1.2 billion board feet. It is necessary to reduce sales of chargeable timber to adjust for the overcutting in fiscal years 1963 and 1964 caused by the windstorms.

The volume, sales price, and receipts for O. & C. and CBWR timber sold during fiscal years 1961–62, for O. & C., CBWR, and PD during fiscal year 1963, and estimated sales price and receipts for O. & C., CBWR, and PD timber for fiscal years 1964 and 1965 are as follows:

| Fiscal year | Bureau of Land Management sales | | Receipts | |
|---|---|---|---|---|
| | Volume sold (thousand board feet) | Sales price | Bureau of Land Management | Forest Service |
| 1961 [1] | 991,842 | $26,261,765 | $26,424,830 | $3,441,245 |
| 1962 [1] | 917,706 | 22,691,695 | 27,995,977 | 4,074,580 |
| 1963 [2] | 1,567,267 | 35,979,838 | 28,141,849 | 4,051,005 |
| 1964 [2] | 1,400,000 | 32,200,000 | 34,200,000 | 4,000,000 |
| 1965 [2] | 1,200,000 | 30,000,000 | 30,800,000 | 4,000,000 |

[1] O. & C. and CBWR only.
[2] O. & C., CBWR, and PD west of R. 8 E. Willamette meridian.

The estimated increase in receipts in fiscal years 1964 and 1965 results from the increased volume being sold in fiscal years 1963–64 under the salvage program.

BLM forest activities in western Oregon are of major national significance. While the BLM administers 8.5 percent of the total commercial forest land in the Douglas-fir region (2,176,538 acres), in fiscal year 1963 it offered 21.8 percent of the total lumber production from all ownerships in that area (1.7 billion board feet). The volume of timber harvested from BLM lands in western Oregon provides about 63,000 man-years of employment every year. Contribution to the gross national product is estimated to approximate $750 million.

*Forest development and protection*

The plan of work for forest development and protection in western Oregon, which previously has been included under "Management of lands and resources," is shown under the "Forest development and protection" activity of the "Oregon and California grant lands" appropriation for fiscal year 1965. All funds for this work have been eliminated from the 1965 budget request for this appropriation.

(*b*) *Public domain (excluding western Oregon)*

The estimate of $4,485,000 is an increase of $109,900 over the amount available for fiscal year 1964. The additional funds are programed as follows:

(1) An increase of $106,000 to provide adequate progress on inventory and maintain timber sales at the 1964 level;

(2) An increase of $51,000 to reduce a large reforestation backlog;

(3) A decrease of $82,000 in forest protection in Alaska;

(4) An increase of $34,900 to provide for increased costs in fiscal year 1965 of the pay raise authorized by Public Law 87–793.

*Need for increase.*—Increases are requested in order to continue progress on the program begun in fiscal year 1962 to bring the public domain lands under sound forest management. In accordance with this program completion of both the forest inventory and reforestation surveys is scheduled for fiscal year 1965. Once completed these elements of the forestry program can be placed on a maintenance basis while the information gained from them is used to determine the full allowable cut and make it available to industry in accordance with sustained yield management principles. Similarly, the information gained through the completion of the reforestation surveys will make it possible for the Bureau to develop sound schedules for the reforestation of cut over and damaged areas to restore these lands to productivity.

*Plan of work.*—Forestry activities conducted on public domain lands, exclusive of western Oregon, include the three major functions of forest management, forest development, and forest protection as described below:

(1) Forest management: The estimate includes $2,098,000 for this function which is an increase of $106,000 over the amount available for fiscal year 1964.

Increasing public use of the Federal lands requires greater detail in planning than in past years. The rapidly growing recreational demand alone has caused agencies administering public lands to review plans previously developed. With the completion of the forest inventory in fiscal year 1965, the Bureau will, for the first time, be in a position to develop on the public domain detailed forest management plans based on sound factual data.

The increase will help provide for the completion of the forest inventory that was initiated in fiscal year 1962. Completion of the inventory is imperative in order to develop sound management plans. Lacking detailed inventory data, previous reconnaissance studies show that some forest areas are not being cut to full potential, while other areas are being overcut. In either instance both the Federal Government and private industry suffer because of the inadequacies of available forest resource data. There is a growing reliance on the part of the timber industry and local communities for timber sales from the public lands. This dependency requires the regular and predictable offering of timber volumes annually to provide industry and local economies reasonable stability. It therefore is incumbent upon the Bureau to determine the full allowable cut and to make it available to the installed capacity of industry.

Access needs for fiscal year 1965 are anticipated to be 320 permits and easements involving approximately 430 miles of road. Granting rights to use existing roads or to construct roads across lands administered by the Bureau of Land Management is expected to involve 150 permits and 230 miles of road. Good trespass control and prompt trespass action are essential to proper forest management. The requested funds will provide for processing 183 cases during fiscal year 1965. This level of trespass closure will have to be increased substantially in subsequent years in order to meet the 1967 deadline for elimination of the backlog of trespass cases.

Timber sales are being held at the same level as fiscal year 1964 pending completion of the forest inventory and computation of allowable cuts. Plans are to offer 155 million board feet. Actual and estimated volumes and receipts for timber sold from public domain lands for fiscal years 1961 through 1965 are as follows:

| Fiscal year | Volume sold (thousand board feet) | Sales price | Receipts |
|---|---|---|---|
| 1961 [1] | 141,288 | $2,305,100 | $2,259,682 |
| 1962 [1] | 147,484 | 2,037,695 | 2,664,923 |
| 1963 [2] | 100,260 | 1,083,564 | 1,436,070 |
| 1964 (estimate) [2] | 155,000 | 1,700,000 | 1,500,000 |
| 1965 | 155,000 | 1,700,000 | 1,600,000 |

[1] Includes western Oregon public domain.
[2] Excludes western Oregon public domain.

The 155 million board feet to be offered in fiscal year 1965 will contribute an estimated $42,625,000 to the gross national product and provide for over 8,100 man-years of work.

(2) Forest development: The estimate includes $450,000 which is an increase of $51,000 over the amount available for fiscal year 1964, exclusive of increased pay costs.

The most critical phase of managing forests at a productive level and under the sustained yield principle lies in prompt reestablishment of tree reproduction on denuded forest land. Experience has shown that under the most favorable circumstances only about one-half of the area deforested by fire, logging, insects, or disease, will show adequate natural regeneration from adjacent seed sources 10 years after denudation. With approximately 200,000 acres of public domain forest lands cut over or damaged by various causes since 1950, it is estimated that about 100,000 acres are in need of treatment to assure a continuing source of wood fiber.

The loss of timber growth from public domain lands needing treatment is estimated to be at least 20 million board feet per year, having at today's stumpage

prices an annual value of $220,000. The loss of such production reduces the gross national product by an estimated $5½ million annually.

Annual timber oriented employment resulting from the 1965 fiscal year reforestation program is estimated at 50 man-years. In 1965 forest planting alone will provide for approximately 20 man-years of field labor in areas often remote, where the labor force is dependent on forestry related work. It is estimated that in 1965 the direct private payroll resulting from only the planting effort will be $120,000.

The program as presented contemplates treatment of only those sites having highest productive capacity. In addition to actual planting and seeding of 3,150 acres, the program also involves the necessary preparation of brushed-over and grassed-in sites to provide for a proper planting or seedbed, as well as the purchase of seed and planting stock.

The 1965 reforestation program is as follows:

| | Acres | Amount |
|---|---|---|
| Reforestation plans and surveys | 173,000 | $103,000 |
| Site improvement | 3,150 | 128,000 |
| Reforestation | 3,400 | [1] 219,000 |
| Total | | 450,000 |

[1] Includes purchases of approximately 2,300,000 seedlings and 230 pounds of seed.

(3) Forest protection, Western States: The estimates include $837,000 for this function which is the same amount as is available in fiscal year 1964.

Contracts for fire protection are negotiated on a rate per acre that is based on the average of 5 prior years' experience. The negotiations of some contracts may involve amounts in excess of the average due to the severity of the fire season immediately prior to the contract year. Hazard reduction work, including snag felling and removal and construction of firebreaks, will be continued at a modest level.

The acreage and estimated costs for fiscal year 1965 are:

| State | Acres | Cost |
|---|---|---|
| California | 2,055,900 | $535,000 |
| Idaho | 542,270 | 107,000 |
| Minnesota | 40,700 | 3,000 |
| Montana | 245,000 | 25,000 |
| New Mexico | 94,000 | 5,000 |
| Oregon | 386,800 | 45,000 |
| Washington | 150,200 | 25,000 |
| Subtotal | 3,514,870 | 745,000 |
| Supervision | | 55,000 |
| Hazard reduction | | 37,000 |
| Total | | 837,000 |

(4) Forest protection, Alaska: The estimate includes $1,100,000 for this function which is a decrease of $82,000 from fiscal year 1964, exclusive of pay costs.

Significant progress has been made in the program since calendar year 1957. The annual acreage burned has been reduced from 1 million to about 200,000 acres. During the first 9 months of calendar year 1963, 13,285 acres have burned. Rapidly expanding population and recreational use places the lands and resources in greater jeopardy from fires and creates a need for higher protection standards. Higher values are being placed on Alaska's forest resources as a result of increased interest in wood fiber.

Increasing State and national interest requires more intense protection of wildlife and their habitats. Alaska is one of the major nesting grounds of North America and contributes migratory waterfowl to all major flyways.

The program complement has reached about 80 percent of the normal year operation needs. Acceleration of the program has been deferred in favor of priority work in other activities for fiscal year 1965.

*4. Cadastral surveys*

| Subactivity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Public land States except Alaska | $2,533,043 | $2,961,100 | $2,990,000 | +$28,900 | +$28,900 | 0 |
| (b) Alaska | 1,854,387 | 1,943,800 | 1,960,000 | +16,200 | +16,200 | 0 |
| Total | 4,387,430 | 4,904,900 | 4,950,000 | +45,100 | +45,100 | 0 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

(a) *Public land States, except Alaska*

The estimate of $2,990,000 is an increase of $28,900 to provide for increased costs in fiscal year 1965 of the pay raise authorized by Public Law 87–793.

*Plan of work.*—It is necessary to maintain the essential cadastral surveys in support of the major resources inventory and multiple use programs of the Bureau. The 1965 program will emphasize surveys, resurveys, special surveys, small tract surveys, and remonumentation of Forest Service boundaries needed for: (1) development of mineral resources, particularly through oil and gas leasing; (2) management of timberlands and settlement of timber trespass cases, the identification of tracts for timber sales, timber salvage operations and reforestation; (3) population and industrial expansion of western towns and cities; (4) reestablishment of selected corners marking the boundaries of the public lands.

A summary of the 1965 program follows:

| Purpose of survey | Approximate area in acres | Field party days [1] |
|---|---|---|
| 1. Bureau of Land Management land: | | |
| (a) Forest management | 320,000 | 1,330 |
| (b) Range management | 1,005,000 | 2,085 |
| (c) Minerals program | 80,000 | 1,160 |
| (d) Lands program | 600,000 | 1,990 |
| 2. Work mainly for other agencies: | | |
| (a) Miscellaneous surveys for other Federal agencies (and financed from BLM funds) | 200,000 | 1,010 |
| (b) Reestablishment of boundary monuments | [2] | 500 |
| Total | 2,205,000 | 8,075 |

[1] For purpose of definition, a field party normally consists of a chief of party and 5 subordinate survey aids.

[2] Not measurable in acres.

The majority of the surveys will be accomplished by established ground methods. Electronic measuring devices, photogrammetric methods, radioisotope corner markings, Hoversight techniques, and other new developments in the cadastral surveying spectrum will be adopted and used wherever feasible. Protraction surveys are being extended over areas where their use for all management purposes short of title transfer is feasible.

(b) *Alaska*

The estimate of $1,960,000 is an increase of $16,200, entirely for increased pay costs, leaving the program at the 1964 level.

*Plan of work.*—A summary of the 1965 program follows:

*1965 cadastral survey program, Alaska*

| Purpose of surveys | Approximate area in acres | Approximate miles of survey line | Field party days |
|---|---|---|---|
| 1. State selections | 2,800,000 | 2,400 | 5,920 |
| 2. Smaller areas | 50,000 | [1] | 295 |

[1] Not measurable in miles.

By the close of fiscal year 1964, cadastral surveys for State selections will approximate 60 percent of the acreage selected to date. Most of these surveys have required additional work in 1964 and some activity on this acreage may extend into 1965 to comply with July 1963 instructions on details of field marking of State selections. The total program for 1965 contemplates a survey of 2,800,000 or about 20 percent of the total acreage selected to date. At the end of the 1956 program, about 80 percent of the total area presently selected will be surveyed. The extent of further selections that may be made in the meantime is not known but will reduce the ratio of the area surveyed.

The cadastral survey program in Alaska must also provide adequately for the survey of smaller areas. Approximately 50,000 acres of land for smaller tracts is to be surveyed in 1965. The rapidly expanding economy of Alaska requires prompt action on applications for survey of homesites, homesteads, mineral claims, and trade and manufacturing sites. In many cases, smaller areas already covered by valid rights are found within the boundaries of State selections. These lands cannot be selected by the State and must be surveyed and the area eliminated from the selected list.

The Bureau employs the most advanced methods, including tellurometer and Hoversight techniques. The latter is coupled with radio communication to Anchorage where computations are processed on ADP and the results radioed back to the field party. In this manner it is possible to survey almost twice the area as with electronic equipment and five to six times the amount possible with customary ground methods.

*5. Soil and moisture conservation*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Soil and moisture conservation | $10,842,309 | $11,255,700 | $11,926,000 | $670,300 | $70,300 | $600,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

The estimate of $11,926,000 is an increase of $670,300 over 1964, consisting of:

(1) An increase of $600,000 to provide for rehabilitation of burned over areas;

(2) An increase of $70,300 to provide for increased costs in fiscal year 1965 of the pay raise authorized by Public Law 87–793.

NOTE.—The weed control activity has been merged with this activity and the amounts shown for 1963, 1964, and 1965 include weed control funds. Weed control activities will be continued at present levels in the following States: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, and Wyoming.

*Need for increase.*—The fiscal year 1965 program includes an increase of $600,000 for rehabilitation of areas damaged by wildfires. This has been a most useful program because it has permitted immediate action to revegetate burned areas, at the lowest possible cost, because seeding can be done without expensive land preparation costs. This increase, together with the $250,000 provided in fiscal year 1964, will total $850,000 for treatment of public lands damaged by wildfires. Without conservation treatment, public lands suffer as a result of wildfires, which not only destroy the vegetative cover, but also render the soil vulnerable to accelerated erosion and serious watershed damage. The treatments will be applied immediately after wildfires occur, while the surface soil conducive to plant growth is still in place, and before invasion of undesirable plants that would require additional treatment. This increase is directly related to experience and should provide an adequate program for a typical year; however, more extensive damage in a critical fire year might require supplemental funds.

In 1965, $30,000 is to repay the Bureau of Employee Compensations for increased benefit payments which already have been made to injured BLM employees. Billings to the Bureau reflect actual costs paid; however, this amount will be absorbed.

No increase in the regular soil and moisture conservation program is included in these estimates. However, one situation may require extensive reprograming

or supplemental funds. Recent outbreaks in epidemic proportions of a defoliator moth (Aroga websteri) have defoliated approximately 12 million acres of sagebrush, primarily in Oregon, Idaho, Nevada, and northeastern California. Where the insect attack results in wholesale destruction of sagebrush there are dangers to the range resource similar to those resulting from wildfire. In many cases the understory of native perennial grasses and forbs is absent, and in others it is so suppressed that it cannot respond rapidly to dominate the land and protect it from accelerated erosion or invasion of undesirable species such as Medusahead, cheatgrass and halogeton. Halogeton is poisonous; Medusahead and cheatgrass create extreme fire hazards and are of low forage value. As with fire rehabilitation, early application of conservation treatment will yield the best results at the lowest costs. These outbreaks are relatively recent, thus it is premature to estimate the extent to which seeding or other treatments may be required, and the degree to which requirements can be met by reprograming. However, the situation appears to be serious and may require substantial funds. It should be viewed as a contingency upon these estimates at this time.

*Plan of work.*—The 1965 program contemplates the application of several major conservation practices which are compared in the following table with major accomplishments in 1963 and planned for accomplishments for 1964:

*Soil and moisture conservation program by major practices*

| Conservation practice | Units | Fiscal year 1963 accomplishments | Fiscal year 1964 planned program | Fiscal year 1965 program |
|---|---|---|---|---|
| Brush control | Acres | 328,900 | 262,700 | 270,500 |
| Range seeding | do | 208,000 | 283,800 | 205,500 |
| Fencing | Miles | 1,679 | 1,841 | 1,456 |
| Water development | Number | 875 | 1,136 | 995 |
| Water control structures | do | 1,619 | 1,397 | 2,394 |

In addition to those practices listed in the preceding table, the 1965 program will include contouring, pitting, furrowing, waterspreading, dune control, deep tillage, checks, fertilization, tree and shrub planting, weed control or other practices which aid in reducing erosion, rebuilding soil, improving soil fertility and structure, and reducing loss of water.

Funds for soil and moisture conservation and weed control are provided for those areas most urgently requiring treatment. The following table illustrates proposed allocations by States for the fiscal year 1965 program:

*Soil and moisture conservation program by States for fiscal year 1965*

| State: | *Total program* |
|---|---|
| Arizona | $567,000 |
| California | 557,000 |
| Colorado | 835,000 |
| Idaho | 1,063,000 |
| Montana | 920,000 |
| Nevada | 1,353,000 |
| New Mexico | 1,277,000 |
| Oregon | 1,786,000 |
| Utah | 955,000 |
| Wyoming | 1,050,000 |
| Program direction, employee compensation, and other expenses | 713,000 |
| Fire rehabilitation | 850,000 |
| Total | 11,926,000 |

Previously identified projects will continue at the 1964 rate. Emphasis will be placed on developing the 85 designated resource conservation areas established in 1964.

*6. Fire suppression*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| Fire suppression | $2,370,247 | $400,000 | $400,000 | 0 | 0 | 0 |

This estimate is for the same amount as in 1964 and represents a continuation of the practice of requesting a token appropriation to be followed with a supplemental request to cover the actual cost of fire suppression.

*Plan of work.*—Under this activity the Bureau will continue to suppress fires on or threatening lands under its jurisdiction except those protected under contract with States or other Federal agencies (see items "Forest protection, western Oregon" and "Forest protection, Western States" under the activity "Forestry"). The Bureau cooperates closely with States and other Federal agencies in its effort to reduce heavy losses from fires. Modern firefighting techniques, equipment and materials are used wherever possible. The fire danger rating system, airdrop chemical fire retardants, improved radio communications, and smokejumpers are among measures developed to improve firefighting effectiveness. Regular salaries of permanent employees used on an emergency basis during regular duty hours for fire suppression are not included in this estimate.

*7. Maintenance of physical facilities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| Maintenance of physical facilities | $153,767 | $178,000 | $400,000 | +$222,000 | 0 | +$222,000 |

The estimate of $400,000 is an increase of $222,000 over the amount available for fiscal year 1964, consisting of—

(*1*) An increase of $150,000 to maintain and operate the sanitation and protection facilities constructed under the accelerated public works program;

(*2*) An increase of $72,000 to more adequately meet annual maintenance requirement of Bureau structures.

*Need for increase.*—The increase is needed to maintain and operate sanitation and protection facilities constructed in fiscal years 1963 and 1964 and to meet regular maintenance requirements which are especially heavy on the Bureau's older structures of light construction. The sanitation and protection facilities which have been constructed must be maintained to protect the investment made in them and to permit them to continue to serve their purpose of avoiding fire and pollution danger to the natural resources and to the public. The buildings which are used by the Bureau for offices, warehouses, and fire control purposes in many instances were not constructed for enduring use. Until such time as the Bureau can replace them, heavy annual maintenance must be performed to keep the buildings in use without unnecessarily endangering the safety and welfare of BLM employees. As new buildings are constructed, regular annual maintenance must be performed to protect the investment made.

*Plan of work.*—Structures will be repaired and renovated so that they can contribute their maximum potential to the Bureau's expanding resource management programs.

Maintenance of sanitation and protection facilities will consist of disposing of garbage, maintaining equipment, testing water supplies, and servicing the sanitation facilities. This work will be performed for the most part under contract with local residents.

*8. Maintenance of access roads*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Maintenance of access roads | $25,210 | $225,000 | $700,000 | +$475,000 | 0 | +$475,000 |

This estimate of $700,000 is an increase of $475,000 over the amount available for fiscal year 1964.

*Need for increase.*—Through neglect caused by lack of funds over many years the Bureau's roads have seriously deteriorated and extensive deferred maintenance work must be performed before roads can be placed on a regular maintenance basis. The most economical approach is to accomplish the deferred maintenance as quickly as possible. A start is being made with the funds available in the current year. A substantial increase is needed in the budget year so that significant progress can be made toward performing approximately $3 million worth of deferred maintenance on some 18,000 miles of main access roads. The work done will protect existing roads and the investments in them and the adjacent public lands. Adequate maintenance will avoid more expensive replacement costs in the long run. With increasing public use of public lands, maintenance of roads in a safe condition for general use is essential.

*Plan of work.*—Primary emphasis will be given to providing adequate road drainage through ditching and repair and replacement of culverts. This type of maintenance will greatly reduce future water damage to the road and help prevent soil erosion. Over 15,000 feet of drainage pipe will be laid in 1965. Emphasis will be given also to major maintenance required to reopen roads closed by slides and washouts. It is planned that over 1,100 miles of roads can be reopened following maintenance work in 1965. The total program of maintenance involves grading over 6,000 miles in 1965. Heavily used routes will receive continuing normal maintenance to prevent deterioration. A relatively small amount will be expended on the normal maintenance program because of the substantial need in the deferred maintenance areas.

*9. General administration*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| General administration | $1,741,006 | $1,785,000 | $1,814,000 | $29,000 | +$29,000 | 0 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

The estimate of $1,814,000 is an increase of $29,000 to provide for increased costs in fiscal year 1965 of the pay raise authorized by Public Law 87–793.

*Plan of work.*—Over the past 6 years the programs of the Bureau have expanded sharply, while practically no additional administrative support has been provided. Consequently, the internal audit staff has been reduced, adequate staffing for procurement management and for analysis of management problems has been deferred in order to meet day-to-day operating requirements. These measures will be continued in 1965.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $43,145,674 | $44,066,500 | $45,447,000 | +$1,380,500 |
| Transferred to "Operating expenses, Public Buildings Service" (76 Stat. 716) | 348,335 | 86,000 | | −86,000 |
| Unobligated balance lapsing | 916,191 | | | |
| Appropriation | 44,410,200 | 44,152,500 | 45,447,000 | +1,294,500 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 24,388,975 | 25,209,880 | 25,805,000 | +595,120 |
| 12 Personnel benefits | 1,671,494 | 1,770,200 | 1,810,000 | +39,800 |
| 21 Travel and transportation of persons | 2,614,866 | 2,480,000 | 2,650,000 | +170,000 |
| 22 Transportation of things | 984,011 | 900,000 | 952,000 | +52,000 |
| 23 Rent, communications, and utilities | 630,539 | 638,000 | 650,000 | +12,000 |
| 24 Printing and reproduction | 398,053 | 400,000 | 400,000 | |
| 25 Other services | 6,729,620 | 6,892,000 | 7,950,000 | +1,058,000 |
| Services of other agencies | 87,000 | 114,000 | 140,000 | +26,000 |
| 26 Supplies and materials | 3,698,496 | 3,920,000 | 3,500,000 | −420,000 |
| 31 Equipment | 1,689,779 | 1,800,000 | 1,650,000 | −150,000 |
| 32 Lands and structures | 300,000 | | | |
| 42 Insurance claims and indemnities | 160 | | | |
| 44 Refunds | 548 | | | |
| Subtotal | 43,193,541 | 44,124,080 | 45,507,000 | +1,382,920 |
| Deduct quarters and subsistence charges | 47,867 | 57,580 | 60,000 | −2,420 |
| Total obligations | 43,145,674 | 44,066,500 | 45,447,000 | +1,380,500 |

### Decrease in Title, Lease, and Records Service

Chairman Hayden. I notice that in your estimate for "Title, lease, and records service" there is a gross decrease of $230,000 which you attribute to improved operations. Would you describe these improved operations briefly?

Mr. Stoddard. Yes. The moratorium which we had on new filings for land entries enabled us to get our workloads current, so we are not just servicing backlogs and just answering letters. I would like to have Irving Senzel, Senator Hayden, our man in charge of our Lands Division, give you a little more background on the specifics of this, if he will.

### Current on-Hand-Cases Backlog

Mr. Senzel. Mr. Chairman, the land moratorium resulted in a reduction of our pending backlog from 43,000 to 16,000 cases. That brought us down to a current position for the first time in about 15 years.

Chairman Hayden. You are actually current?

Mr. Senzel. We are practically current in all respects. Some States are a little behind, but we are making every effort to bring them current. That saves a good deal of money in handling just the correspondence about a backlog. We are able now to handle cases.

### New Legislation in Application System

We have also introduced new regulations in the way we conduct our operations with applicants. We now have a petition-application system and we avoid, by more direct and informative relationships with the applicant, a great deal of appeals which are also very expensive and time consuming.

We have revised the small tract regulations in order to put most of our work on a Government motion business, so that we can make tracts available much more quickly and satisfactorily consistent with local planning standards.

### Modernized Fee System

We have modernized our fee system so that we have a more realistic overall fee system.

We have decentralized activities so far as possible to the district levels, so that the district manager, who knows the land best, has technicians right there where the people who are really interested in the land can come and speak to somebody who has real knowledge of the capabilities of the land and of the opportunities to secure lands.

### Land Listing

We are listing lands now so that people know what is available, and this is the first time in our history really that we have been able, under the classification system, to show what lands are available. And there are other steps.

Chairman Hayden. From your description, conditions are greatly improved.

Mr. Senzel. Thank you.

### Field Examination and Classification

Chairman Hayden. In your item "Field examination and classification" for which you propose $4 million in fiscal year 1965, I observe that stress will be placed upon a thorough outdoor recreation inventory and evaluation of all Bureau of Land Management lands. How is this activity coordinated with the functions of the Bureau of Outdoor Recreation? Is there any overlapping or duplication of work?

Mr. Stoddard. No, sir. We are using their standards in inventorying areas which have recreational attractiveness and for determining the suitability and usefulness of particular areas, and for identifying areas which are suitable under the Recreation and Public Purposes Act for transfer to local, State, or county governments, or which are available for future use as public areas.

We are using their people to work with us in defining the standards. They don't have a very large field staff, and this does help us in getting the fieldwork carried out.

### Homestead Applications Classified, 1962

Chairman Hayden. In 1962, I understand that the Bureau of Land Management classified only 7 homestead applications totaling 720 acres as suitable for disposition while it classified 2,419 applications covering 377,000 acres as unsuitable for disposition under the Homestead Act. A review of the other public land laws such as the desert land law and the public sale laws shows much the same situation.

REASON FOR LOW RATIO IN CLASSIFIED LAND

Could you advise this committee why there is such a low ratio between lands classified as suitable compared to those found unsuitable?

Mr. STODDARD. Yes, sir. The problem is that the existing land laws do not require that in advance of an application that there be a determination of the suitability of the land for disposal under a particular law. The result is that people make applications when there hasn't been any real advance determination of the suitability of the land for the particular purpose indicated by the law under which they make their filing.

Because so little of the public land now administered by the Bureau is suitable for agriculture, as much of it has been gone over, there are very few cases which do not result in a positive classification. We made a study of agricultural land law effectiveness which showed that during the last decade only 230 out of the 4,000 homestead applications went all the way to patent.

In addition, our study showed that of the few that went to patent, only half of them were being presently used for agriculture.

Chairman HAYDEN. Isn't this procedure wasteful of the time and energy of your people as well as that of those who seek to acquire public land?

COST OF PROCESSING APPLICATIONS

Mr. STODDARD. We estimate the cost of processing these applications, based upon those that are successful, to equal about $50 an acre. On this basis, it costs us more than the land is worth, and it ties down a lot of people.

Chairman HAYDEN. I can understand, of course, that the land has been picked over and picked over and picked over, and a man thinks he would like to get it and then he can't qualify.

Will you submit for the record a statement regarding the effectiveness of the various public land laws at the present time?

STUDIES ON LAND LAWS

Mr. STODDARD. Yes, sir, we have made some studies which we will be glad to provide to the committee.

Chairman HAYDEN. I think it would be of benefit to the legislative committees.

Mr. STODDARD. Yes, sir.

(The information referred to follows:)

LAND LAW EFFECTIVENESS STUDY

During the fiscal year of 1963, the field considered a total of almost 1,000 applications for public sale under sec. 2455 R.S. Of these, 60 percent were rejected, and 40 percent were approved. About one-half of the rejections were for reasons that did not involve the exercise of discretion, i.e., the law or procedural defects [1] prevented the field officers from approving the applications. Where the field officers had discretion as to the disposition of the application, approvals amounted to nearly 60 percent of the total considered.[2]

[1] By procedural defects is meant the steps the applicant must and does not take to have a valid application before the Department. These defects are remedial, and the application is rejected only if the applicant chooses not to correct them.

[2] These data must be considered approximations. In assigning the reasons for rejection from the data on hand, field reporters necessarily are subject to a degree of judgment error. Likewise, summarizing the field reports involves both this type of subjective error and also a certain degree of error in the tabulation of those applications rejected for multiple reasons.

The major reasons given for rejection where discretion was required involved inconsistency with public management programs. The data reported were not in sufficient detail to identify the programs involved in every case, but reference was often made to various Federal agencies and to State and local governmental agencies also. They suggest that about one-half of the discretionary rejections involved findings of inconsistency with BLM programs and about one-third inconsistency with other governmental management programs. The remainder involved conflicts with other types of disposition or with other criteria.

Under existing procedures, the public sale applicant is required to publish legal notice of the authorized sale. During fiscal year 1963, about 25 percent of the applicants failed to publish after being authorized to do so.

None of the authorized sales were canceled prior to bidding. However, in about 5 percent of the cases, no bids were received. Failures to publish and failures to bid resulted in reducing the total possible sales by 30 percent.

During the year, four transactions were vacated after bidding was completed. In two cases, the appraisals were found to be defective. In one case, the bidders failed to comply with the postbidding regulations. In the fourth case, a public need for the land (outdoor recreation and wildlife purposes) became apparent after the bidding.

## Agricultural Land Law Effectiveness Study

### INTERIM ANALYSIS

By almost any measure, except to the individuals involved, homesteading in the Western States during the decade of the fifties was a minor matter. A little more than 4,000 applications were filed, of which some 560 were approved to the extent of permitting the applicants to go upon the land to try their luck as homesteaders. By the end of 1962, a total of 230 homesteaders received patents while some 190 had given up. The remainder still had time to prove up.

From experience to date with the applications, the expected record for the period when it is finally closed looks as follows: About 14 percent of the applications will have been allowed and 86 percent rejected; of the allowed entries, 50 to 60 percent will be patented.

By States, about 60 percent of the allowances were in two States, Nevada and Utah, where 28 percent and 19 percent of the applications, respectively, were allowed. So far in Nevada, only 29 percent of the allowed entries have gone to patent with the outlook being that the final figure may be about 40 percent. Comparable Utah figures are 40 percent allowed and perhaps 65 percent patented.

Homesteading in Alaska, often referred to as the "last frontier," never did reach beyond minor proportions, considering the length of time and the great area of lands involved. Sixty-five years of homesteading in that State so far has led to about 10,000 claims. Of these, 3,250 have gone to patent, with some claims still pending. This indicates that eventually the total patented will amount to about 40 percent of the claims. This figure is highly influenced by the period 1944–54 during which many World War II veterans could earn title simply by residence on the land for 7 months. The averages before and immediately after this period both amounted to about 20 percent.

### DESERT LAND ACT APPLICATIONS

Applications under the Desert Land Act, applicable only in 13 Western States, totaled about 20,000 in the 10-year period. Of these applicants, some 3,300 were permitted to go upon the land to develop it. By the end of 1962, a total of 1,250 had received patents while 1,100 had given up. Almost 1,000 still had time to reclaim the lands.

Experience to date indicates that eventually about 20 percent of the applications will have been allowed. Patents will probably issue for 50 to 60 percent of the allowed entries.

About two-thirds of the desert land allowances were in the two States, Idaho and Nevada. In Idaho, a little more than 40 percent of the applicants were allowed compared to about 20 percent for Nevada.

Patenting in Idaho is expected to run to about 60 percent of the allowances. The figures for Nevada are more uncertain and could run between 40 and 60 percent.

The Pittman Act, operable only in Nevada, was almost a complete failure. Out of 1,700 applications, 172 were allowed, and 2 went to patent by the end of 1962. Only a few remained uncanceled.

Activities initiated under these agricultural land laws during the 1950's resulted in passing about 300,000 acres in the Western States into private ownership by late 1962. Better than one-third of this acreage was in Idaho (134,000 acres). Nevada was next with 46,000 acres and Arizona third with 27,000 acres. These laws did not prove to be a very significant means of getting lands into private ownership. Public sales during the same period transferred 1,200,000 acres out of public ownership.

In Alaska, homesteading has also not proved to be a means to get large areas into private ownership. Sixty-five years of homesteading resulted in the transfer of about 400,000 acres, about one-tenth of 1 percent of the land area of the State.

CULTIVATIONS OF LANDS

In terms of actual cultivation of lands, the objective of these laws, the results are even smaller. Studies in the summer of 1962 of the lands patented by 1961 showed a total of about 125,000 acres cultivated in the Western States. About 60 percent of the cultivated lands were in Idaho. Most of the farming appears to be oriented to the livestock industry—alfalfa, grass, and small grains being the principal crops. Outside of these groups were potatoes (some 11,000 acres, mostly in Idaho), beans (some 5,000 acres, again chiefly in Idaho), safflower (about 5,000 acres, practically all in Arizona), and very small acreages of other crops.

Data on cultivation in Alaska are not yet tabulated. However, only about 25,000 acres are under cultivation in all of Alaska. In terms of acreage patented within the scope of these studies, cultivation amounted to almost 60 percent of the lands patented under the Desert Land Act, about 30 percent of the lands in the Western States patented under the homestead acts, about 2 percent of the lands patented in Alaska under the homestead acts, and none of the lands patented under the Pittman Act.

By States, the percentage of patented land cultivated included about 70 percent for Idaho, 45 percent for Arizona, 40 percent for Nevada and Utah, 30 percent for California, and 2 percent for Alaska, listing only the States having patents for more than 15,000 acres.

In the Western States, the percentage of entries in 1962 which were entirely devoted to nonfarm uses or entirely out of economic production or use varied from one-third to one-half in five States, one-fifth in three States, and less than one-tenth in three States, including Idaho. By 1962, 40 percent of the entries had changed ownership in their entirety and another 5 percent partly. In Alaska, 84 percent of the entries were estimated to be unoccupied or devoted entirely to nonfarm uses.

No attempt has yet been made to analyze the social costs of getting lands into private ownership during the 1950's via the agricultural land laws. For the purposes of getting an idea of what the magnitudes could be, in the preliminary analyses, an assumption was made of social costs of $300 per application. This appears to be low, considering the costs involved in examination of the lands and analyses of the situation by the applicants and by the Government, the flim-flams by bunco artists and the costs of the investigations and prosecutions, the costs of processing appeals and protests and holding hearings involving the Government, the applicants, grazing users, and other interested parties, the costs of supplying information to the public aware of the fact that there are homestead laws still on the books, water and other investigations and actions by States and local governments, actions by the better business bureau, newspapers, etc.

If the social costs are only $300, then the total costs for handling the applications filed in the Western States during the 1950's was about $8 million, or perhaps about $20 per acre transferred to private ownership. These would be merely the costs of transfer—costs of development would be additional and in individual cases can amount to as much as $150 per acre.

If the nondevelopment social costs amount to $1,000 per application, which is not unreasonable, then the costs of transfer could be close to $75 per acre. During the 1950's, sales of small tracts averaged between $40 and $50 per acre while lands sold under the public sale act averaged close to $10 per acre.

Especially if Idaho is eliminated from consideration, it seems altogether reasonable to conclude that quite often, if not generally, social costs of transfer of lands under the agricultural lands laws in the 1950's exceeded the raw land value of the transferred land.

### Title Transfers Under the Public Land Laws in Alaska

To date, approximately 3,200 entries and 420,000 acres have been patented under the homestead laws. Currently, there are about 25,000 acres under cultivation on which crops have been harvested. Approximately one-half of this acreage in cultivation was brought about directly or indirectly by the Matanuska Colony project.

From the standpoint of achieving agricultural settlement and development, the homestead laws operating over a period of 60 years have been a failure. In addition, homesteading has demanded the expenditures of thousands of dollars of public funds for roads and other public services. An untold amount of individual effort and money has also been spent on homesteading endeavors which failed to produce an economic return.

For the period of 1953 through 1962, 1,462 homestead patents were issued for 165,954 acres; 4,478 small tract patents for 11,930 acres, and a total of 879 patents for 4,106 acres were issued under the homesite, headquarters, and trade and manufacturing site acts.

For the same period 572 townlot patents were issued. Figures are not available as to the number of townsite deeds issued by townsite trustees. It is estimated that close to 1,000 were issued during the 10-year period.

As can be seen, the Small Tract Act has been the most successful of these laws on the basis of number of persons accommodated. The results of the act are particularly noteworthy in light of the fact that fair market value is required for the lands which is not true of the settlement laws. This act has also had significant success when measured in terms of use and development. Examples of intense use brought about under the act include the recreation sites on Big Lake and Harding Lake, and hundreds of homesites in the Anchorage and Fairbanks areas. Classification encouraged concentrations which would justify roads and power supplies. In addition, it allowed systematic and planned openings to meet genuine needs.

State selection applications have concentrated on areas in proximity to settlement and along transportation routes. Its applications now cover practically all lands having reasonable potential in the foreseeable future for agricultural, urban, commercial, and industrial purposes. Yet, applications now total only about 14 million acres or about 13.5 percent of the grants. The State is expected to file promptly for any lands that appear to have economic potential, whether surface or subsurface, and therefore is expected to be in constant competition with private individuals and companies for Federal land. The State will have the edge in such competition owing to the ease of selection and the segregative effect of its applications.

### Lowest Cost on Administration Desired

Chairman Hayden. This committee is interested in achieving the lowest possible cost in the administration of the public lands, while helping to develop the most effective ways to put land in private or in State ownership.

What suggestions do you have for reducing nonproductive work and improving procedures for getting public lands into private or State ownership?

Mr. Stoddard. There are proposals, as you know, for reviewing the public land laws. The House has one proposal which is coming up very shortly. A thorough review of the operation of the public land laws in relation to the management and administration and disposal of public lands is almost essential for us to reduce the costs to the maximum extent.

### Advanced Classification of Lands

One of the things that we are engaged in now is an effort to try to classify the public lands in advance; that is, to try to use some objective classifications, not on the basis of the various laws, but on what are they likely to be used for, based on appraisal of their resources, their location, and economic and physical factors. Are they in blocks

or are they scattered or are they near cities and towns, and so on, so that we can determine where the long-term management commitments should be made and the conservation measures applied and where the disposal programs should be concentrated.

Chairman HAYDEN. To the extent that you can do that you are saving time of the department and you are saving the time of the prospective owners of the land.

Mr. STODDARD. We look forward to this as being a means of coming to grips with the problem.

### OUTDOOR RECREATION INVENTORY AND EVALUATION COST

Chairman HAYDEN. What is the cost to you of your outdoor recreation inventory and evaluation activities?

Mr. STODDARD. You mean what is the present cost of it?

Chairman HAYDEN. Yes.

Mr. STODDARD. Actually, it is carried on as the inventory work is carried on, as a very minor part of the lands activity. Do you have any of the precise figures?

Mr. BEIRNE. We can supply that.

Mr. STODDARD. It is carried on as a sideline activity. We will supply an estimate.

(The information referred to follows:)

During fiscal year 1964 the Bureau of Land Management will expend not more than $150,000 on outdoor recreation inventory and evaluation.

### RANGE RESOURCES INVENTORIES BUDGET

Chairman HAYDEN. How much is in this budget for your range resource inventories and how does the work which you have accomplished so far, and which you propose to accomplish in fiscal year 1965, compare with the trial program of public land range appraisal prepared at the request of this committee and published as Senate Document 119 in calendar year 1962?

Mr. BEIRNE. Senator, the figures that we supplied the committee are essentially the same as we are working on now, around $1 million a year for this purpose.

Chairman HAYDEN. Could you supply the figures?

Mr. STODDARD. We will supply the details for the record.

(The information referred to follows:)

### PUBLIC LAND RANGE APPRAISAL PROGRAM

The public land range appraisal program contemplated by Senate Document 119 would involve a total cost of $11.9 million for the Bureau of Land Management, of which approximately $5.8 million is for the completion of the regular range inventories of the Bureau. Appropriations have provided a portion of this amount during fiscal years 1963 and 1964 and it is expected that sufficient regular funds will be available to complete the initial range inventories by the end of fiscal year 1966. The additional work required by the public land range appraisal program would cost an estimated $6.1 million over a 5-year period.

### ESTIMATE LOWER FOR "WESTERN OREGON LANDS"

Chairman HAYDEN. I observe that your forestry estimate for western Oregon lands is less than the amount made available to you last year. Would you explain to the committee what changes in your program are responsible for this decrease?

Mr. STODDARD. There are some shifts in the account classifications here, as well as others. Mr. Beirne has some of those figures right handy.

Mr. BEIRNE. Senator, last year the House committee proposed that the additional costs because of timber sales be paid from the receipt limitation appropriation. This year it is proposed that all of the management costs be paid from this appropriation, and that in lieu of that, that the cost of reforestation and fire protection be paid from the timber sales.

AMOUNT OF REDUCTION

This effects a net reduction of $401,000 in the appropriation for those lands. The total amount for direct operations will still be the same but a greater amount will be paid out of the receipts rather than out of direct appropriations.

Chairman HAYDEN. You actually save no money as a whole?

Mr. BEIRNE. That is right.

REDUCTION IN "FOREST PROTECTION, ALASKA"

Chairman HAYDEN. You are asking $82,000 less in fiscal year 1965 for forest protection in Alaska than the amount available to you in fiscal year 1964. In your justification you say that the rapidly expanding population and recreational use creates a need for higher protection standards. How do you reconcile the reduction in your financial needs with this statement?

TRANSFER TO STATE ADMINISTRATION

Mr. BEIRNE. As the lands are being transferred to the State, the State generally assumes the cost of protecting those lands, and so, therefore, there are fewer acres to be protected by the Federal Government

Chairman HAYDEN. That is how you make the savings?

Mr. BEIRNE. Yes, sir.

SENATE LANGUAGE ON ALASKAN LAND SELECTION

Chairman HAYDEN. Last year, the report of the Senate committee contained language with regard to land selections made by the State of Alaska under the statute admitting Alaska into the Union. The conference report took note of this language and indicated that the directive included in it would be satisfied by surveys of the exterior boundaries of full townships with monumentation at an average of 2 miles around the perimeter of the townships.

Would you please tell the committee how this procedure has worked out, and indicate whether selections are being disposed of at a satisfactory rate of progress?

Mr. STODDARD. Mr. Remington, our chief engineer, has been handling this program, and I would like to have him present this.

METHOD OF HANDLING LAND SELECTION

Mr. REMINGTON. This method of monumenting the surveys and grouping them into surveyable sections and townships has for the first time given us a charter and we have progressed very rapidly on

that. We are very satisfied with the procedure now. We have an understanding with the State of Alaska, and before the surveys are started, we agree on a monumentation pattern, and then proceed with the work.

We have about 175 townships that we have been able to complete during that past summer, and complete the monumentation and get them ready for transfer to the State, because of the committee action last year.

TRANSFERS OF ACREAGE SURVEYED

Senator BARTLETT. I have a question or two there. What actual transfers have there been of the acreage surveyed?

Mr. REMINGTON. The actual transfers have not been completed, because the plats themselves have not come in to us from Alaska, but we understand that all of the Susitna Valley, and the Delta Tok Junction area, have been completed and are about ready to come in to us for approval. The actual transfer will be completed at that time.

Senator BARTLETT. Probably during this calendar year?

Mr. REMINGTON. Oh, yes, we feel sure.

Senator BARTLETT. You say the Bureau of Land Management is satisfied with this arrangement made by the committee last year?

Mr. REMINGTON. Yes, sir.

Senator BARTLETT. And you have asked for the same amount of money this year as the committee gave last year?

IMPROVEMENTS IN ALASKA SURVEYING

Mr. REMINGTON. That is right. We have improved our process and procedures for surveying in Alaska, and we think that this will enable us to carry on the program at a satisfactory rate.

Senator BARTLETT. And that amount was $300,000 for the current fiscal year more than the budget had originally requested?

Mr. REMINGTON. That is right.

REHABILITATION OF CERTAIN LAND IN SOUTH DAKOTA

Chairman HAYDEN. Last year Congress added unbudgeted funds for rehabilitation of public land in Butte and Lawrence Counties, S. Dak., and in the Big Horn Basin of Wyoming. Will you please indicate briefly the accomplishments attained with this money?

Mr. STODDARD. In South Dakota we have set up an office at Belle Fourche for the Makotapi project. This area is an area where there are three principal blocks of public lands and we are completing all of the basic project planning work during the winter and we are ready to move in the spring now.

In tree planting, we have 60,000 acres ready to go for spring tree planting, and we have scheduled 900,000 board feet of timber sales, much of which, or the majority of which is salvage of bug-killed timber.

In addition we have seven contracts for treating of infested areas and then we are setting up what we are calling a resource conservation area there, which will be a demonstration area of the kinds of practices which are appropriate. That is, the gully plugs, the contouring and the reseeding and various kinds of practices which are applicable to

the particular piece of land or the soil, and so on. So that we will have a small start on what will be the larger job ahead.

AMOUNT REQUESTED FOR PROJECT

Chairman HAYDEN. What sums do you have for each of these projects in the fiscal year 1965 budget?

Mr. STODDARD. $146,000.

Senator MUNDT. I have a question there. How much is that?

Mr. STODDARD. $146,000.

Senator MUNDT. That is yet to spend?

Mr. STODDARD. No.

ANTICIPATED EXPENDITURES, 1965

Senator MUNDT. What do you anticipate spending in the fiscal year now under consideration?

Mr. STODDARD. We have the same amount as last year, $146,000.

Senator MUNDT. Is that adequate to make the job proceed at a maximum or optimum rate?

Mr. STODDARD. As far as we can see we will be able to work consistently at a longer term conservation program in carrying on this work area by area, as we get to it.

POSSIBLE FUTURE NEED FOR LARGER FUNDS

Senator MUNDT. Do you anticipate that the best procedure is to use about that much money each year, or does it lead up to a time when you will have to have larger funds.

Mr. STODDARD. Well, the big part of this is going to essentially be capital investment and once it is made, it will be more on a maintenance basis. We really haven't gone into an analysis of when do we taper off of capital investment and go on maintenance.

But the rehabilitation of the resource, such as the tree planting, and getting of the land into more forage production is going to be scheduled out probably over a 10- or 15-year period.

Senator MUNDT. As I understand it, your actual work in the field will begin for the first time next spring.

Mr. STODDARD. Yes, in the spring. Most of the work was preparatory work last fall.

ESTIMATE FOR ACTIVITY IN BIG HORN BASIN

Chairman HAYDEN. Senator McGee, with regard to the action taken by the committee last year respecting the Big Horn Basin in Wyoming, do you have any questions?

Senator MCGEE. Yes, I have, Mr. Chairman. During these hearings last year, Mr. Stoddard, Mr. Landstrom indicated that the total estimated cost for the Big Horn Basin rehabilitation project was about $21 million. He also indicated that the project would require approximately 10 years to complete.

Now, an initial small appropriation was made last year, between $300,000 and $400,000, to begin work on it. The Bureau is asking for that same amount, $385,000, this year. I wonder if for the record you could advise the committee as to how the initial funds were spent and what is contemplated with that amount of money for this year.

EXPENDITURES OF INITIAL FUNDS

Mr. STODDARD. On these kinds of large projects, you have to go into a particular area. For 1965 we chose two small watersheds, No Water Creek and Bud Kimbell Creek, where we would apply all of the kinds of measures that were appropriate for the area. That is, the range improvement through elimination of sagebrush and the replacing with range grasses, and the soil conservation and other watershed measures that are supporting practices.

As you know, Senator McGee, there have been some misunderstandings in the area with respect to some of these techniques and so on, and why they were needed, and we felt by concentrating on a couple of watershed areas and getting the local people who were affected involved in this, that we could carry on a demonstration of why these projects would eventually increase the total number of AUM's and improve the water supplies in the area in a way that they would have a clear understanding of what was involved over a much larger area.

NEED FOR LARGER ANNUAL EXPENDITURES

Senator MCGEE. The amount that you are asking for this year, $385,000 isn't moving us very systematically toward $21 million in 10 years. That leaves us short. You ought to be spending a couple of million dollars a year if you were going to stay on any schedule.

COMPLETION DATE

Do you still estimate a 10-year completion date for this project?

Mr. STODDARD. No, sir; we don't. We are having to revise the length of time in which we feel that we can carry this project out. As I indicated, we are going to be learning quite a little bit from the experience in the particular areas that we are working in right now, so that we will have a better idea of whether our initial estimates have been accurate or not.

Senator MCGEE. In other words, you hope with this smaller allocation, concentrated in smaller sample areas, to not only educate the Bureau but to educate the ranchers involved.

Mr. STODDARD. That is right; we are going to have a real showplace, to show them what is involved.

Senator MCGEE. Would you anticipate that if this showing is an effective one, that you would then be prepared to step up the tempo considerably, let us say beyond this $385,000?

Mr. STODDARD. Yes, sir, we would be able to. We would be able to do this in the future. We would like to be assured that the people in the area are cooperating in this thing, and we hope that in the process of trying it out on a small scale, we get the people at the local level behind us on this. But this year we are concentrating at this level that we are proposing to continue.

COOPERATION WITH RANCHERS

Senator MCGEE. What kind of cooperation has the Bureau encountered so far with the ranchers in the area?

Mr. STODDARD. Well, we called a meeting on November 26 in which we asked all of the ranchers to come in who were our users in the Big

Horn Basin, at which the project was discussed in some detail and the response was generally for it and what the results would be as a result of the work that would be done.

In the local area now that the work is going on, we are going to have a local meeting of the local users, so that they can watch this operation all the way along. We did previously work this project through the advisory boards of the districts and with the soil conservation district people.

This project has a long history of technical work and some local work, but it was put on the shelf for a long time. I think a lot of people forgot it because the initial work was started in 1950 and since then it has been revived and revised.

### Importance of Information Regarding Cooperation

Senator McGee. This is a point I think exceedingly important, and the Big Horn Basin is a place in which the Bureau or somebody has failed to get the full story told. There are those who, for whatever reasons, are coming out of the basin with the impression that this rehabilitation project was something that was invented in Washington, that was being rolled back in reverse order into the basin. As a matter of fact, as you very correctly stated, this project has a very long history, its origin and the original concept of it coming up through the local boards as far back as 12 or 13 years ago.

It is now possible to bring it into fruition, but it is going to take cooperation and understanding by the ranchers and the others who are using the grazing areas in the basin. This is the only reason that I am willing to go along with the Bureau's budget request this year of $385,000. This project is not a steamroller operation.

### Selection of Small Areas for Discussion

In view of the need of correcting and narrowing this gap of misunderstanding, I think that the Bureau is very wise in selecting and working on the two small areas in order to demonstrate locally what the capabilities of the entire project area are. I think then you will have an easy task of winning understanding in the other areas of the Big Horn Basin.

Mr. Stoddard. I might say where we have done this in other places, it has worked out this way. They have got to see. The report doesn't do it, but where they can see the results on the ground, they will get behind this.

Senator McGee. This project goes back before your time, of course. However, it certainly shows a blindspot in the Bureau in terms of public relations and public information. I am glad to learn you are taking steps to correct these particular failings.

### Technicians Fail To Inform Local People

Mr. Stoddard. Basically, one of our problems is that we are technical fellows, and our technical fellows will see what needs to be done and they will develop a plan for working with the resource. Sometimes we forget that there are people involved, and I think that this in one of the things that happened.

Senator McGEE. You put it very well. I know the BLM is under fire in many parts of Wyoming for many wrong reasons, but this matter does reflect a lack of either patience or concentrated effort to try to acquaint the local groups with precisely the work that is underway.

I think the Bureau would admit it has made some mistakes as well. We all make mistakes. But once in a while there is a lack of candor in admitting some of those mistakes of the past, and this fires the imagination of a community and enables the troublemakers to whip up much wider opposition than even the mistakes themselves would ordinarily have invited.

### FIELD HEARINGS CONTEMPLATED

Again, I think that you are going at this the right way. We hope to have some field hearings out there whenever the circumstances of the Congress will permit, so that some of these people can sound off and get it out of their systems and lay their cards on the table. I think with you at the helm now we will have a chance to call everybody's cards and see where we stand. We are looking forward to that opportunity.

I want to thank you for the initiative you have shown in approaching the public relations problem in this realistic manner.

### DEMONSTRATION PROJECT AREA

Senator MUNDT. May I continue along that same line, or not exactly along the same line, but something he said stimulated this.

We have no criticism of your Bureau in South Dakota, but you said something in response to my earlier question. I think you said you set up some of these projectlike demonstration areas for private people who may go out and do likewise on their land.

Mr. STODDARD. That is right.

### LIAISON WITH STATION AT NEWELL

Senator MUNDT. In that connection, I wonder whether you have any liaison or any partnership programs or any coordination with the Federal station out at Newell, that the Department of Agriculture has in soil and water utilization. It would seem to me that there should be some connection between the two programs in some way.

Mr. STODDARD. If I am not mistaken, Senator, I believe that our people have been over there to go over the kinds of techniques that have been developed at that station that can be applicable in the western South Dakota project. We hope to apply known techniques so far as it is possible rather than pioneering.

Senator MUNDT. It is something that you could supply for the record, because it is something that you wouldn't have on top of your mind, but tell us what coordination there has been between you and the Newell station, and what might be done to a greater extent in that area.

It seems to me what you get out of public lands somebody else has to pick up. This is a job of the Department of Agriculture, of the specialists in the Newell Station, and there should be a sort of a cross-fertilization of the programs and planning and publicity.

RECORD OF APPLICABLE TECHNIQUES

So if you will prepare that for the record I would appreciate it.

Mr. STODDARD. One of the things that we are in the process of doing, and this applies to public lands all over, is work much more closely with the soil conservation districts. They have agreements with the private owners whose lands intermingle our land, and this enables us to make more unified planning of a total piece of land, and this will apply in the future.

Senator MUNDT. Will you supply that for the record?

Mr. STODDARD. I will.

(The information referred to follows:)

NEWELL EXPERIMENT STATION

Direct contacts were made with the Newell Experiment Station in 1963 when the Makotapi project was in the initial stage of development. Applicable information obtained from the station was used in the preliminary planning. The station was contacted again on February 12, 1964, for the specific purpose of obtaining assistance on methods and techniques for range studies. An agreement as to the design and extent of the studies will be made in the near future.

Because of the unique soils in the project area, it is anticipated that additional research projects on contour furrowing, seeding, and other conservation and development work will be undertaken cooperatively.

PETRIFIED FOREST REMAINS

Senator MUNDT. You mentioned earlier something about archeological antiquities. I believe that you are going to find some of the greatest petrified forest deposits which we have in this country, and certainly the greatest we have in this area.

What do you do to protect those or how do you operate now? I know they are there, but I don't know what your relationship is there.

Mr. STODDARD. We are in the process of developing a program for protective withdrawals of these lands. This is one step. The first one, of course, is identifying where they are. Then, the next is to determine what are likely to be the kinds of uses or abuses that may be made and how they may be preserved.

Having the protective withdrawals, we will then consider the lands in a special classification for administration and management. In some cases, we are building cyclone fences around very, very valuable deposits of huge petrified logs. This is only in two or three instances, but we found that in Senator Bible's State, the people have come in and dynamited some of this just invaluable material.

Until we know what we want to do with it in the future and how do we want to preserve it for posterity, we are having to select out some of the most valuable of these deposits and give them protection.

SMALL MANUFACTURING INDUSTRY USING PETRIFIED WOOD

Senator MUNDT. That is good, because I have no idea what you should do, but I know we have some out there that are 100 and 150 feet long, and pretty large diameter and width, and I just wondered what your connection with them was. I think that there is an industry, a small industry, a jewelry industry at Lemmon, S. Dak., which is in Perkins County, where they get from private deposits these little pieces of this petrified wood to make jewelry, that is, pin-on jewelry.

Mr. STODDARD. We will see what there is in this area, as a result of our inventory, and we will make a report.

TIMETABLE ON PETRIFIED FOREST PRESERVATION

Senator BIBLE. Might I interrupt at that point? On this question of the preservation of our petrified forests, and some disposition of them, could you give me the timetable on your surveys and inventories?

I know some fine geologists at our University of Nevada, and Mackey School of Mines, who made suggestions to our people that certain areas should be preserved pretty much in frozen status, so that the generations to come could see evidence of these petrified forests. We have a number of rather interesting ones in the State of Nevada. They have been dynamited and they have been removed by a lot of so-called rock hounds.

How far along are you on your study as to the possibility of designating certain areas as areas in which petrified forests could not be removed?

Mr. STODDARD. We have a few of them that we know already and we are moving on those. During this summer we are asking the district managers to identify any additional ones that would be candidates. We are going to set up some standards with respect to what would fit in and what would not fit in to an area that is worthy of being set aside.

We will get all of this information together. Then we will move on that with respect to which ones should have some very special treatment of the kind that I have mentioned.

Senator BIBLE. And you are to be commended for that.

Mr. STODDARD. In the fall sometime, I think we would have that.

Senator BIBLE. I would hope that you move along rather diligently, because if you take too long in making these so-called set-asides, they will be dynamited and completely removed and they will be gone. This is a position of many of our geologists in Nevada—that is, if the set-asides are not made pretty soon, there will be no more petrified forests left.

Senator MUNDT. What happens after you set them aside? Are they made a national park, and do you administer them? Suppose you decide that here is 10 acres that ought to be kept as it is, and then what do you do?

ADMINISTRATION OF WITHDRAWN AREAS

Mr. STODDARD. This is one of the questions that relate to the general question of how do we manage the public lands. For some time, I think that we are going to have to work cooperatively with the States, to help us in administering some of these areas, or the National Park Service where it is nearby, but essentially the basic job of administration is going to be ours.

One of the things that we are working toward, and I think that you gentlemen would be interested to know, is that by having rangers out for part of this 600,000 acres in a district that I indicated, rather than concentrated in a district office, so they can work with the local people and the local people know who they are, it will have some better control over these kinds of uses.

We are having to resolve this kind of administration for these special areas. Some of them are so small that they wouldn't warrant being national parks.

Senator BIBLE. Thank you.

Mr. STODDARD. We will cooperate with the Nevada geologists and I will check on this with our State director this afternoon.

### AMOUNT FOR REHABILITATION OF BURNED-OUT AREAS

Chairman HAYDEN. I note that you are requesting $600,000 more this year than the $250,000 provided in fiscal year 1964 for rehabilitation of burned over areas. Your budget request last year was very much greater than the amount which was approved. How did the amount appropriated work out insofar as your needs were concerned?

Mr. STODDARD. We had some rather substantial fire losses, Senator Hayden, which exceeded the amount we had available.

Mr. BEIRNE. Most of our bad fires were in Idaho. We rehabilitated some of these areas, and then we had proposed a supplemental which unfortunately the timing was late and we couldn't get the work done. So the supplemental did not appear before the Congress.

However, the Bureau of the Budget did allow an additional $600,000 for next year so we have funds available to rehabilitate these areas immediately following the fire.

### DEFOLIATOR MOTH EPIDEMIC

Chairman HAYDEN. With regard to the defoliator moth epidemic, would you describe for the committee just what is the problem which confronts you? When did the epidemic first become large enough to be so described?

Mr. STODDARD. It was known to exist for several years, but last year it became, in 1963, in epidemic proportions, and it looks as though the sagebrush is going to be not only defoliated but killed as a result. In some areas, this will have the effect of releasing grasses to grow, and in other areas where there is no cover, this means that we are going to have to do a job of range seeding.

We are watching it very carefully, and there are approximately 12 million acres of sagebrush that have been defoliated, and next spring will be the test of just how much has been able to survive through this epidemic of defoliator moth.

Chairman HAYDEN. This defoliates sagebrush and nothing else?

Mr. STODDARD. No; it is a specific insect.

Chairman HAYDEN. I thought sagebrush was tough enough to withstand anything.

Mr. STODDARD. That is what we all thought.

### COST OF MOTH ELIMINATION AND RESEEDING

Chairman HAYDEN. What is the estimated cost of eradication of the moth?

Mr. STODDARD. Whether we eradicate the moth or whether we replace the sagebrush with grass is a question. I think the latter is more likely to be our course of action, because some species of sagebrush are valuable forage for the big game animals, and it will affect them more than it would affect livestock.

The cost of reseeding 12 million acres roughly is $9 an acre, and that would run us to a fairly substantial figure, $108 million if we tried to do it all at once, but we are not coming in with any kind of a program or estimate on this, because we don't know what is going to happen.

### Maintenance of Physical Facilities

Chairman Hayden. I note that in your budget for maintenance of physical facilities there is an increase of $150,000 over the amount available in fiscal year 1964, for maintaining and operating sanitation and protection facilities constructed under the accelerated public works program. Would you please supply for the record a tabulation of the accelerated public works projects constructed on Bureau of Land Management lands, indicating the type and the location of each project, the total cost of each project; and if they were not constructed entirely with Federal funds, please indicate the source and amount of non-Federal funds.

### Accelerated Public Works Construction

Mr. Stoddard. Yes, sir; we built 64 sites with 854 family units. We will supply this.

(The information referred to follows:)

### Accelerated Public Works Program

#### Sanitation and protection facilities

The Bureau of Land Management utilized $2,110,000 in accelerated public works funds to construct sanitation and protection facilities on 64 sites involving 854 family units. No contributed or matching funds were involved in this construction. A detailed listing of the sites follows:

| State | County | Construction cost | Remarks |
|---|---|---|---|
| Alaska | Anchorage Election District 10. | $47,000 | 20 family units at Eklutna Lake. |
| | Fort Yukon-Fairbanks Election District 16. | 17,000 | 10 family units, 1-mile access road at Eagle. |
| | Cordova-Valdez Election District 6. | 33,000 | 10 family units, 2 boat docks, 2-mile access road at Mankomen Lake; 20 family units at Miles Lake. |
| | Palmer-Wasilla-Talkeetna Election District 7. | 18,000 | 10 family units at Bayer Lake. |
| California | Humboldt | 157,000 | 30 family units, 12 miles of foot trails and related facilities in Kings Range area. |
| | Lassen | 58,000 | 30 family units and boat dock at Eagle Lake; 20 family units at Post Camp-Painter Flat. |
| | Trinity | 78,000 | 20 family units at Douglas City campground. |
| | Tulare | 140,000 | 50 family units at Long Valley and Kennedy meadows. |
| | Mendocino | 5,000 | 10 family units on Red Mountain. |
| Idaho | Kootenai | 39,000 | 4 family units and 2½ miles of trail at Killarney Creek and Mineral Ridge; 20 family units at Mirror and Crystal Lakes. |
| | Washington | 83,000 | 20 family units, boat dock, and 5 miles of trail at Brownlee Reservoir. |
| | Benewah | 9,000 | 5 family units at Tingley Spring. |
| | Bonner | 12,000 | 9 family units and ½ mile of trail at Pack River Viewpoint. |
| | Idaho | 15,000 | 10 family units and 700 feet of trail at Skoockumchuck Creek. |
| Nevada | Lincoln | 6,000 | 4 family units at Meadow Valley Wash. |
| | Mineral | 107,000 | 17 family units and boat launching facilities at Walker Lake; 20 family units and boat launching facilities at Tamarack Point. |

| State | County | Construction cost | Remarks |
|---|---|---|---|
| New Mexico | San Juan | $45,000 | 5 family units at Angel Peak. |
| | Taos | 279,000 | 34 family units at 6 recreation sites, with 4 parking areas and 16 miles of foot trails in the Rio Grande Gorge. |
| Oregon | Curry | 10,000 | 7 family units at Sixes River. |
| | Josephine | 189,000 | 32 family units at Deer Creek and 10 miles of construction on the Rogue River Trail. |
| | Klamath | 77,000 | 30 family units and boat launching facilities at Gerber Reservoir; 10 family units at Chase Mountain; 10 family units and boat launching facilities at Topsy. |
| | Coos | 38,000 | 10 family units at each of the following sites: Burnt Mountain Cabin, Park Creek, Bear Creek, and Cherry Creek. |
| | Douglas | 45,000 | 10 family units at each of the following sites: Darby Creek, Cavitt Falls, Lone Rock, and Susan Creek Falls. 5 family units at Little River and 15 family units at Wolf Creek Trail. |
| | Marion and Polk | 264,000 | 70 family units on Santiam River at Fishermens Bend; 20 family units at Elk Horn Valley; 20 family units at Canyon Creek; 14 family units at Mill Creek; 25 family units at Salmon Falls. |
| | Columbia | 22,000 | 10 family units at Scaponia site. |
| Utah | Carbon | 64,000 | 50 family units at Price Canyon. |
| | Emery | 20,000 | 12 family units, foot trails, and parking area at Buckhorn Wedge. |
| | Garfield | 80,000 | 9 family units at Relishing Seep-Calf Springs; 10 family units at Sawmill Basin; 10 family units at McMillan Springs. |
| | St. George | 53,000 | 12 family units at Red Cliffs. |
| | San Juan | 75,000 | 15 family units at Hatch Point; parking area, 4 picnic areas, and 3 overlooks at Needles Viewpoint; 4 overlooks, 2 picnic areas, foot trails, and parking area at Anticline Overlook. |
| Wyoming | Sweetwater | 25,000 | 10 family units at 14-Mile Reservoir. |
| Grand total | | 2,110,000 | |

NOTE.—Includes projected items pending completion of projects.

### MAINTENANCE OF ACCESS ROADS

Chairman HAYDEN. Your budget estimate for fiscal year 1965 for "Maintenance of access roads" is $700,000 compared to the fiscal year 1964 appropriation of $225,000, which was a reduction of $79,000 in your last year's estimate. Would you please explain to the committee why more than three times as much money as was made available last year is to be required in the coming year?

Mr. REMINGTON. This is a program we are just getting underway, the maintaining and bringing up to the original standard a lot of the old roads that are servicing our areas. This, I believe, will allow us to open up to the public some 1,100 miles of these roads that are presently closed. It is a program to further open up the public lands by improving the existing roads to a standard that the public can travel on.

Chairman HAYDEN. Of course, the roads serve many purposes.

Mr. REMINGTON. Oh, yes.

### 1965 BUDGET ESTIMATE FOR CONSTRUCTION

Chairman HAYDEN. There will be included the budget estimate for "Construction" for fiscal year 1965. The Bureau requests an appropriation of $1,400,000, which is $1,100,000 more than was appropriated in fiscal year 1964.

(The document referred to follows:)

BUREAU OF LAND MANAGEMENT

*Construction*

| | |
|---|---|
| Appropriation, 1964 | $300,000 |
| Unobligated balance from prior years | 465,986 |
| Total available for obligation | 765,986 |
| Decreases: | |
| Access roads on public domain lands | 372,256 |
| Buildings | 393,730 |
| Subtotal | 765,986 |
| Increases: | |
| Buildings | 400,000 |
| Sanitation and protection facilities on public domain lands | 1,000,000 |
| Total, budget estimate, 1965 | 1,400,000 |

*Analysis by activities*

| Activity | Amount available, 1964 | Fiscal year 1965 | | | Total available, 1965 compared to total available, 1964 |
|---|---|---|---|---|---|
| | | Unobligated balance from prior years | Budget estimate | Estimated total available | |
| 1. Access roads | $372,256 | | | | −$372,256 |
| 2. Buildings | 393,730 | | $400,000 | $400,000 | +6,270 |
| 3. Sanitation and protection facilities | | | 1,000,000 | 1,000,000 | +1,000,000 |
| Total | 765,986 | | 1,400,000 | 1,400,000 | +634,014 |

*1. Access roads, 0*

No estimate is furnished for access roads in fiscal year 1965 under this title in view of the authorization by the 87th Congress of a new section of the Federal Aid Highway Act entitled "Public Land Development, Roads and Trails." Amounts that are unobligated and unexpended as of June 30, 1963, will remain available and will be utilized under this appropriation to complete authorized projects.

*2. Buildings, $400,000*

The estimate of $400,000 is an increase of $100,000 over funds appropriated in 1964, exclusive of $93,730 in carryover funds which also are available in that year.

The only project included in this estimate is the fire control facilities to be constructed at Anchorage, Alaska. In fiscal year 1962 the Congress authorized funds for the preparation of architectural plans for fire control facilities in Anchorage, estimated to cost approximately $1.1 million. Present facilities are located on Elmendorf Air Force Base and are composed of prefabricated buildings constructed under the CCC program in 1941. Facilities are covered by a revokable permit from the Air Force, first issued in 1948 and renewed periodically since that time. The last permit was issued in December of 1959 for 5 years.

In 1953 the Air Force indicated in writing that the Bureau of Land Management should move. Subsequent expressions by the Air Force as to their desires to have the Bureau vacate have been expressed verbally. Location on the base is not advantageous to the Air Force, the Bureau of Land Management, or the public. It presents some inconvenience for the Air Force and is not good in terms of military security control of the base. Maintenance costs for the present buildings are excessive and the buildings are exorbitantly expensive to heat. Necessary major improvements cannot be justified under current revokable permit conditions. Proposed construction site on Bureau of Land Management land is more suitable for requirements of transportation, delivery of supplies, etc. The contemplated facilities will provide for more efficient operation of the fire control station.

The request of $400,000 is to initiate construction of these facilities in fiscal year 1965. Completion of the entire fire station is scheduled within 3 years.

*3. Sanitation and protection facilities, $1,000,000*

Use of the public land for recreation is increasing and cannot be stopped with reversal of public policies of long duration. Much of the public land has a potential for recreation. The land is there; the people go to it and use it. Public health and safety is endangered and unsightly eyesores develop. Public lands can be left unmanaged only when their resources are not in demand by people. When recreation use is made of these lands without even minimum facilities, fire, pollution, erosion, and other hazards are created which endanger the using public.

While thousands of people depend at least partially upon the public lands for grazing, timber products, oil and gas, and other mineral resources as a means of earning their living, millions of people look to the public lands as a place to relax rather than work. It is estimated there will be 18 million visits to BLM lands for fishing, hunting, sightseeing, picknicking, and other recreation purposes during 1965. This use is occurring despite very few access roads. Recreation is a valuable land use and an inescapable component of multiple use resource management.

The Bureau is engaged in a varied preventive program to diminish abuse of public lands resulting from improper recreation use. Special steps have been taken to have field personnel properly utilize the various acts of Congress so as to better control trespass and protect archeological and other antiquities; steps are being taken to stop flagrant violations of the Antiquities Act in the Four Corners country of Utah and Colorado. Petrified wood deposits will be given orderly management under proposed regulations implementing Public Law 87–713. Rules of conduct governing use of the Rogue River Trail in Oregon were issued following public hearings. New signs are being installed to direct people to established facilities and to encourage respect for resource values. Brochures and maps to assist sportsmen to enjoy the public lands in an orderly fashion are in preparation. Operation Cleanup in Arizona and a similar program in Nevada are examples of efforts by BLM officials, in cooperation with State and local authorities, to encourage recreation users of the public lands voluntarily to maintain clean campgrounds and otherwise practice good outdoor manners.

A conspicuous example of the urgent need to install sanitation and protection facilities is the Owens Valley of California. Heavy year-long use is ruining outstanding scenic areas. Human waste pollutes streams serving as part of the Los Angeles domestic water supply; visitors wash their clothes, dishes, and pets in the streams which are used by others for drinking water; garbage and refuse is scattered in piles about the area; fires are located in places of high fire hazard due to lack of proper facilities. The act of March 2, 1931 (46 Stat. 1530), withdrew most of the public land in the valley to protect this water supply and states: "That nothing herein contained shall be construed as affecting the use or occupancy of any of said withdrawn lands for *recreational* or grazing purposes under such rules and regulations as the Secretary of the Interior may deem necessary to conserve the natural forage of the area." [*Italic* supplied.] The Department of the Interior Regulation of April 18, 1931, further provides for recreation that "due care in the use of campfires and the extinguishment of same must be exercised by all persons using the lands, camp refuse or debris of any kind must not be left in an exposed or unsanitary condition or deposited in or near any stream, lake or other body of water in a manner which may directly or indirectly cause pollution of said water." This law and regulation were effective when use was low, but today it is not the answer to the heavy public use that exists.

Another instance of severe pollution is the condition of the Salmon River in Custer County, Idaho, particularly between Ellis and the Challis National Forest boundary. Many people come from Utah, Montana, Colorado, California, and other States to try their luck in this famous fishing stream, and the public lands bordering it receive intensive use throughout the summer. Pollution of the water, due to lack of any sanitation facilities to serve fishermen camped beside the river, reached such a point that in 1958 the State health department was considering closing the river. Temporary relief was afforded in 1960 with cooperation of the State and of local interests. However, increasing use without any further steps to protect it are aggravating the situation. Cases of severe dysentery and at least one case of typhoid have been attributed to using this impure water for drinking purposes.

An example where facilities are needed to protect human life is the Canyon Rims country of Utah. Here visitors are flocking to accessible overlooks providing spectacular views of the canyons of the Green and Colorado Rivers.

These places are dangerous due to vertical drops of over 1,000 feet, overhanging ledges, and strong wind currents. Fatalities of children, pets, and the more venturesome adults will be inevitable unless protective fences are built.

Similar conditions could be cited on many other portions of the public domains. Where feasible, the Bureau has taken steps to correct them by encouraging lease or sale of the property to State and local authorities. The imperial Hot Spa in California has been used for years by people seeking benefit from its hot waters but without effective control and without necessary sanitation or other public services. In 1963 the Bureau issued an R. & P.P. Act patent for this site to Imperial County. Local interest, especially in the recreation potential of reservoirs near centers of population, has enabled the Bureau to convey some such sites under this act for local development. This program is being intensified but it will not meet all needs.

In the Owens Valley, Salmon River, Canyon Rims, and other selected areas, basic and simple facilities such as toilets, a safe water supply, garbage and litter disposal, and guard fences will be built. One million dollars is requested for this program in 1965. Details of the construction program are set forth in the following table:

| *State and location* | *Cost* |
|---|---|
| Arizona: | |
| Hualpai Mountains | $36,000 |
| Cerbat Mountain | 18,000 |
| California: Owens Valley | 207,000 |
| Colorado: | |
| Five Points Placer | 15,000 |
| Drowsy Waters | 10,000 |
| Gypsum | 33,000 |
| Idaho: Salmon River | 62,000 |
| Montana: | |
| Madison River | 80,000 |
| Locate Creek | 40,000 |
| Nevada: | |
| Red Rock Canyon | 80,000 |
| Wildhorse Reservoir | 97,000 |
| New Mexico: | |
| Three Rivers Pictograph | 14,000 |
| Santa Cruz Reservoir | 30,000 |
| Oregon: | |
| Deschutes River | 100,000 |
| Steens Mountains | 20,000 |
| Utah: Canyon Rims | 30,000 |
| Wyoming: Five Springs | 78,000 |
| Survey and design of facilities | 50,000 |
| Total | 1,000,000 |

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $1,185,632 | $765,986 | $1,400,000 | +$634,014 |
| Unobligated balance brought forward | −651,618 | −465,986 | | +465,986 |
| Unobligated balance carried forward | 465,986 | | | |
| Appropriation | 1,000,000 | 300,000 | 1,400,000 | +1,100,000 |
| Obligations by objects: | | | | |
| 1 Personnel compensation | 213,237 | 40,590 | 200,000 | +159,410 |
| 12 Personnel benefits | 10,871 | 1,309 | 11,000 | +9,691 |
| 21 Travel and transportation of persons | 28,645 | 11,570 | 30,000 | +18,430 |
| 22 Transportation of things | 12,405 | 7,251 | 15,000 | +7,749 |
| 23 Rent, communications, and utilities | 3,004 | 490 | 5,000 | +4,510 |
| 24 Printing and reproduction | 684 | 700 | 1,000 | +300 |
| 25 Other services | 315,692 | 60,797 | 100,000 | +39,203 |
| Services of other agencies | 2,817 | 3,000 | | −3,000 |
| 26 Supplies and materials | 63,143 | 51,120 | 73,000 | +21,880 |
| 31 Equipment | 19,249 | 1,540 | 65,000 | +63,460 |
| 32 Lands and structures | 515,885 | 587,619 | 900,000 | +312,381 |
| Total obligations | 1,185,632 | 765,986 | 1,400,000 | +634,014 |

FIRE CONTROL BUILDINGS, ANCHORAGE, ALASKA

Chairman HAYDEN. $400,000 of this amount is for buildings and all of it is to be expended for fire control facilities at Anchorage, Alaska. What is the total cost of these facilities in Alaska which, I understand, will require 3 years for completion?

Mr. STODDARD. The total cost, Mr. Chairman, is $1.1 million which, if spent once, will be over 1 fiscal year. We propose to spread it out over 2.

Senator BARTLETT. May I ask a question?

Chairman HAYDEN. Certainly.

Senator BARTLETT. How many buildings are to be constructed, Mr. Stoddard?

Mr. STODDARD. Let Mr. Remington talk on these specifics.

Mr. REMINGTON. In the Anchorage setup, it is a part of the main building. It is the training section of the building which will house the warehouse and the training section.

METHOD OF LETTING CONTRACTS

Senator BARTLETT. Then let me ask this question, because I would assume this is to be done over a 3-year period that three separate contracts will have to be let: Can you do this as cheaply in that matter as to complete the job in 1 year under one contract?

Mr. REMINGTON. No. The architect who designed the building has given us an estimate that it will cost us $80,000 more to build it in three sections than to build it all at once as one job. There are actually two buildings involved. The training center and the warehouse will be one, and the equipment repair shop is another building.

Senator BARTLETT. Then the three-step program will involve an additional cost to the taxpayer of about $80,000?

Mr. REMINGTON. $80,000 is the architect's estimate.

Senator BARTLETT. Thank you. That is all.

Chairman HAYDEN. Are there any other building projects planned for fiscal year 1965?

Mr. STODDARD. Actual buildings? No sir. It is mostly maintenance on existing buildings.

SANITATION AND PROTECTION FACILITIES

Chairman HAYDEN. With regard to the $1 million asked for "Sanitation and protection facilities" I find a very strong similarity to the description of the project for which you requested $700,000 in the fiscal year 1964 budget and which you called "Recreation facilities." Are the projects which are included in the fiscal year 1965 budget essentially the same recreation facilities which were denied by Congress last year?

Mr. STODDARD. The locations are the same, the problem is the same, that is, use by recreationists, by people using public lands. But our proposal here is essentially this: To provide the basic essentials; fireplaces to keep fires from getting away on the public lands; disposal of waste; toilet facilities and water wells so that we don't get pollution of the streams, and so that we do not have litter around, we have dumpsites. These are the basic elements. We have deleted boat ramps and other such improvements.

We do not consider this recreation. We consider this protection of the resource and the public.

RELATION TO RECREATION

Now, the people who come there are recreationists, but they have to go and find their activity interests in other things. These are the basic elements for providing clean use of the public lands.

We have some pictures here, Senator, showing the present problems that we are faced with and showing the way in which public lands are used and abused, because people do not have any kind of campgrounds.

USE OF ACCELERATED PUBLIC WORKS FUNDS

Now we did, with accelerated public works money, take care of some of the difficult situations, but the ones we have left are not in the depressed areas that qualify under the accelerated public works. These are in other areas, and these are the things that exist that we are trying to take care of.

We did do it with accelerated public works money. We have a good record of areas that are in good shape.

Senator BIBLE. May I pursue that a little further, Mr. Chairman?

Chairman HAYDEN. Yes.

PRESENT FACILITY SIMILAR TO FACILITY DENIED, 1964

Senator BIBLE. Notwithstanding what Mr. Stoddard says, and I questioned Secretary Udall on this, this is pretty much the same type of facility that was denied by Congress in the last session. You may be calling it a little differently, but actually what you are doing is the same thing you attempted to do a year or two ago. I think there is some merit for this type of program and I would hope, because the question has been raised as to whether you have the authority to do it or not, that you would supply for the record the opinion of your Solicitor indicating, as I understand it, that you do have the authority to go into these health and sanitation facilities.

(The information referred to follows:)

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SOLICITOR,
*Washington D.C., June 1, 1962.*

Memorandum to: Director, Bureau of Land Management.
Through: Assistant Secretary, Public Land Management.
From: Solicitor.
Subject: Construction of recreational facilities.

You have inquired as to the legal authority under which you can construct recreational facilities on the public lands under the jurisdiction of this Department. More broadly stated, you wish to know whether this Department has authority to administer or manage the public domain for recreation uses. The answer is in the affirmative.

There is no law that directly confers such authority. However, the authority is necessarily implied from other legislation as well as from the general responsibility of the Secretary of the Interior to administer and regulate the use of the lands under his jurisdiction. (Eg., 34 Ops. Atty. Gen. 320, 326–327.)

It is firmly established that the general public may make legitimate use of the public domain though there is no law specifically authorizing it. Eg., *Buford* v. *Houtz* (133 U.S. 320 (1890)). And such use or uses may continue under a sort of implied license until or unless Congress legislates to the contrary. This does not mean that Congress has bestowed a right on the users; it merely suffers the lands to be so used. Eg., *Omaechevarria* v. *Idaho* (246 U.S. 343 (1918)). Nor does it mean that the Secretary of the Interior may not administer and regulate such uses. Quite the contrary, Congress has bestowed upon him the authority

"to prescribe regulations, not inconsistent with law * * * for the Government of his department * * * and the * * * use * * * of the * * * property appertaining to it" (R.S. sec. 161, 5 U.S.C. 22), and has charged him with the duty, among others, of supervising the public business relating to the public lands (R.S. sec. 441, as amended, 5 U.S.C. 485), and of performing all executive duties in anywise respecting such lands. (R.S. sec. 453, 43 U.S.C. 2; 1950 Reorg. Plan No. 3, secs. 1 and 2, eff. May 24, 1950, 15 F.R. 3174, 64 Stat. 1262.)

The use of public lands for recreational purposes is legitimate. It is clearly in the public interest unless it conflicts with some other higher use to which the lands have been devoted. It is not an unauthorized disposition of the lands or their resources. It is not a use that has been specifically or impliedly prescribed by Congress. On the contrary, Congress has for years recognized and protected the right of hunting and fishing (a recreational use) on the public lands. Sections 1, 2, and 9, Taylor Grazing Act, 43 U.S.C. 315, 315a, 315h; section 1, Coordination Act, 16 U.S.C. 660. More recently, it established a nonpartisan Outdoor Recreation Resources Review Commission. (Public Law 85–47, June 28, 1958, 72 Stat. 238, as amended by Public Law 86–6, Mar. 25, 1959, 73 Stat. 14). The salient purpose of this Commission was stated in the preamble as follows:

"That in order to preserve, develop, and assure accessibility to all American people of present and future generations such quality and quantity of outdoor recreation resources as will be necessary and desirable for individual enjoyment, and to assure the spiritual, cultural, and physical benefits that such outdoor recreation provides, in order to inventory and evaluate the outdoor recreation resources and opportunities of the Nation, to determine the types and location of such resources and opportunities which will be required by present and future generations; and in order to make comprehensive information and recommendations leading to these goals available to the President, the Congress, and the individual States and territories, there is hereby authorized and created a bipartisan Outdoor Recreation Resources Review Commission."

In the circumstance, therefore, it can hardly be said that Congress has not given at least its tacit consent to the use of the public domain for recreational purposes. This being the case, it is a legitimate public use of these lands which the Secretary of the Interior is authorized to administer, manage, and regulate.

FRANK J. BARRY, *Solicitor.*

Senator BIBLE. Now I hope that you will develop for the record what you expect to get for the $1 million in facilities and how much more manpower it takes and where they will be located.

Mr. STODDARD. Yes, sir; we will have all of that for you.

### BREAKDOWN OF LOCATIONS

Senator BIBLE. Do you have a breakdown available now?

Mr. BEIRNE. Of the locations?

Senator BIBLE. Where will they be located?

Mr. BEIRNE. In Arizona, in the Hualpai Mountains and Cerbat Mountain; in California, Owens Valley; in Colorado, Five Points Placer, Drowsy Waters, Gypsum; in Idaho, Salmon River; in Montana, Madison River and at Locate Creek; in Nevada, Red Rock Canyon and Wildhorse Reservoir; in New Mexico, Three River Pictograph and Santa Cruz Reservoir; in Oregon, Deschutes River and Steens Mountains; in Utah at Canyon Rims; and in Wyoming, Five Springs.

This is ready to be inserted in the record.

(The information referred to follows:)

### SANITATION AND PROTECTION FACILITIES

The sanitation and protection facilities included in the program are the simplest and most economical possible that will serve the intended purpose. The average cost per family unit is slightly in excess of $1,000. In all cases, State and local governmental agencies have been unwilling or financially unable to construct the necessary facilities. In some cases, however, where the sites are near established communities, local government has agreed to share the costs of operation and

maintenance. The types of facilities proposed are limited to the following:

(*a*) *Sanitation.*—Toilet facilities are of the pit (with concrete base) or chemical type. We do not plan flush toilets. Convenient cans for garbage and trash are provided and a sanitary fill disposal pit frequently provided some distance away.

(*b*) *Water supply.*—Health authorities have determined that much of the water from streams and seeps on the puolic lands is not safe for human consumption. It has become contaminated by domestic livestock, wildlife, or humans. We, therefore, frequently drill wells and install hand operated self-priming pumps or construct a concrete head box at a spring having potable water and install a gravity water system.

(*c*) *Public protection.*—In some instances it is also necessary to construct service roads and trails, bridges, parking areas, provide tables for picnicking and camping and informational and directional signs to concentrate the users of the public lands in safe places. It is also necessary to remove safety hazards from the site or install protective devices. Examples are dead limbs or trees, jagged metal objects under water where children can be expected to wade or swim, and precipitous cliffs.

(*d*) *Fire protection.*—This includes removing inflammatory material from sites, constructing and maintaining fire breaks, and the construction of a safe fireplace for each family unit. This fireplace ordinarily consists of a concrete base firebox with a grid or a sheet metal cover.

Overall, we propose the construction of facilities at 18 sites in 10 States. A brief explanation of these proposed developments follows:

| Name | Description | Cost |
|---|---|---|
| Arizona: | | |
| Hualpai Mountains | 23 family picnicking and camping units, hunters' camps, sanitation facilities, drinking water supplies, and parking areas at 4 sites in mountainous section of northwestern Arizona used extensively by hunters and summer campers. | $36,000 |
| Cerbat Mountain | 9 family units and sanitation facilities at 3 sites along the Chloride-Tipton Road used by hunters, picnickers, and campers. | 18,000 |
| California: Owens Valley | 154 family units, camping and trailer sites, water and sanitation facilities and roads and parking areas for this major recreation area used by an estimated 200,000 people annually, primarily from southern California. Uncontrolled use is causing serious public health hazards. | 207,000 |
| Colorado: | | |
| Five Points Placer | 10 family units for camping and picnicking with sanitation and water facilities on the Arkansas River, 15 miles west of Canon City, where present fishing use is resulting in litter and unsanitary conditions. | 15,000 |
| Drowsy Waters | 10 family units for camping and picnicking with sanitation and water facilities on the Colorado River, 5 miles west of Granby, where easy access from U.S. 40 is resulting in acute sanitary problems. | 10,000 |
| Gypsum | 20 family units for camping and picnicking, with sanitation and water facilities on the Eagle River, where fishermen and campers are creating an extreme litter and sanitation problem. | 33,000 |
| Idaho: Salmon River | 60 family and picnicking units with sanitary and water facilities, access roads, parking areas at 3 sites on the Salmon River, needed to alleviate the existing serious health and safety problems. | 62,000 |
| Montana: | | |
| Madison River | 40 camping and picnicking units with adequate sanitation and water facilities with necessary spur and access roads. Because of good fishing and easy accessibility, the area is receiving heavy public use which results in health hazards and increased fire danger. | 80,000 |
| Locate Creek | 20 family units with water and sanitation facilities adjacent to major highway between Baker and Miles City will help alleviate present heavy demand for overnight camping facilities. | 40,000 |
| Nevada: | | |
| Red Rock Canyon | 40 camping and picnicking units with appurtenant water and sanitation facilities on an archeological site, 15 miles west of Las Vegas, to facilitate present heavy local and regional use which has resulted in unsanitary conditions and destruction of historically valuable petroglyphs. | 80,000 |
| Wildhorse Reservoir | 50 family units with appurtenant water and sanitation facilities for this major water sport recreation center for northern Nevada. Present unsanitary conditions caused by indiscriminate use of this site by anglers, hunters, boaters, and water skiers caused closure of a portion of the lake by the State health department. | 97,000 |

| Name | Description | Cost |
|---|---|---|
| New Mexico: | | |
| Three River Pictograph | 3 family picnicking units, sanitary facilities and a mile of chain link fence to protect Indian pictographs. Present use by visitors is causing serious vandalism and sanitation problems. | $14,000 |
| Santa Cruz Reservoir | 27 family units with appurtenant water and sanitation facilities on 1 of the few lakes available for water sports in northern New Mexico, serving the Santa Fe and Los Alamos area. The intensive uncontrolled use is now causing health and sanitation problems. | 30,000 |
| Oregon: | | |
| Deschutes River | 35 family units at Cedar Island and 20 camping and 20 picnicking units in Mack Canyon with adequate sanitary, water, and parking facilities. 2 sites are located between Sherars Bridge and State Highway 216 and Mack Canyon and were recommended by a joint Federal-State study which recognized the dangers of high fire hazards and sanitary problems adjacent to one of the finest streams in the Northwest. | 100,000 |
| Steens Mountains | 15 family units with adequate sanitation facilities in 2 sites along the Steens Mountains loop road, to accommodate present heavy use by hunters and campers using areas adjacent to Malheur National Game Refuge. | 20,000 |
| Utah: Canyon Rims | 3 overlooks, parking areas, camping and picnicking areas with appurtenant sanitary and water facilities along the Colorado River Canyon rim, 20 miles south of Moab. Complete project started under accelerated public works program. | 30,000 |
| Wyoming: Five Springs | 28 new family units, sanitation facilities, repair of old CCC campsite, spring development, and improved access. Site located near Lovell on a main access road to Yellowstone National Park. Present facilities require improvement and expansion to accommodate users and to alleviate existing unsightly and unsanitary conditions. | 78,000 |

### Outdoor Recreation Resources Review Commission

Chairman Hayden. Is the money requested in fiscal year 1965 made "to implement the recommendations of the Outdoor Recreation Resources Review Commission" as was the case with the funds requested in fiscal year 1964?

Mr. Stoddard. Consistent with the recommendations of the Commission, but based on the inventory. We used their people to help us identify this, or they are being used right now. We have worked it up in cooperation with their standards. Howard Ball of Mr. Crafts' staff has worked with our Mr. Peterson on this.

The actual facilities will be just the basic facilities. We have trimmed back any proposals for boat ramps, or tennis courts, or volleyball courts, down to the basic essentials.

### Family Recreation Units Planned

Chairman Hayden. How many family recreation units are planned for construction with this budget, and where would they be placed?

Mr. Beirne. That has been inserted in the record.

### Maintenance and Servicing of Areas

Senator Mundt. Would you also include in this insertion your plan for maintaining and servicing these areas? It seems to me just to construct something and go away and leave it then you are right back where you were before, because some who use them are pretty careless.

Mr. Stoddard. We have a clue to it on the basis of other construction. We spent $2 million. We have $150,000 in the budget for annual caretaking responsibilities of these sites.

(The information referred to follows:)

FACILITIES PROVIDED

The maintenance program for sanitation and protection facilities in fiscal year 1965 is estimated to require $150,000 and 25 man-years of labor. This labor will be furnished by contractors in areas where they are available and by Bureau temporary employees in more remote areas.

If the $1 million for construction of sanitation and protection facilities is allowed in fiscal year 1965, it is estimated that increases for maintenance in fiscal year 1966 will include $75,000 and 12 man-years of labor for these facilities.

Senator BIBLE. I think there is considerable merit in this, Mr. Chairman, but I think we ought to know exactly what we are doing as we get into it; what the costs are for construction. If I might repeat, you are going to be in four areas; in the area of water, you are going to provide fireplaces, you are going to provide toilet facilities and what else?

Mr. STODDARD. Garbage dumps. Probably there would have to be some roads and trails to provide access.

MAINTENANCE PERSONNEL AND OPERATIONAL COST

Senator BIBLE. And might I ask one further question, following up what Senator Mundt said. I think you have a cost of maintenance. How many men does it take and how much will it cost to keep these operational?

Mr. STODDARD. We will have this in the figures. Now, in some cases we are working with the local governments or the State park people to do this for us. In some cases, the National Park Service may be able to help us. But the cost will be there.

Senator BIBLE. May I ask one further item to be supplied, Mr. Chairman, with your permission.

Chairman HAYDEN. Certainly.

NEW FACET OF PUBLIC DOMAIN MAINTENANCE

Senator BIBLE. Assume we embark on this which is, apparently, a new facet of management of the public domain. Where does it lead us? How many of these do we build around the public domain States? Because you have many, many hundreds of thousands of acres of public domain under your control. How many facilities do we build?

INVENTORY INDICATES AREAS CONCERNED

Mr. STODDARD. The inventory shows where we have indicated areas. We have asked for funds for sites where there are concentrated uses, where people will probably be concentrating their recreational use, hunting, fishing, camping, and so on.

From the inventory, we will know at least the number of sites and probably the capacity that could reasonably be taken care of based on the geography of the particular spots. We can lay this before your committee to indicate what has been the increase in visitor load as this builds up. Then it will be up to Congress to determine how much of this should be provided for, if any, each year.

(The information referred to follows:)

CONSTRUCTION OF SANITATION AND PROTECTION FACILITIES

The facilities to be constructed with the $1 million requested for fiscal year 1965 are all located in areas of intensive public use. This heavy use of areas lacking in basic sanitation and protection facilities has resulted in hazards to the using public and the natural resources through pollution and uncontrolled fires.

On the basis of the present state of our inventory and present knowledge of actual use of the public lands, continuation of this program on the same basis will require the expenditure of $6 million to provide facilities on some 300 sites. Future additional needs for facilities will depend on future trends in use of the public lands.

### Public Domain Lands

Senator Bible. If I understand you correctly, you are attempting to do something with the public domain lands under your jurisdiction and your control similar to what the Forest Service under the Department of Agriculture has done to the forest lands, something similar to that.

Mr. Stoddard. Similar in the fact that people are using them now and we have to provide some means of controlling this use so that the lands and the waters are not harmed.

Now we are not going into the, shall we say, manicuring of the camp spots that would be involved, all the refinements that would be involved in the Forest Service sites. If these people want to rough it, we will have the essential facilities and leave it at that.

### Questions of Charging Fees

Senator Bible. Do you propose to charge a fee?

Mr. Stoddard. This is going to have to be a part of this whole land and water fund consideration, and I think as the policy is developed for the Department and the Government on this, we will have to face up to it.

Senator Bible. A bill has been reported out of the House committee now on a recreational fund. Does that provide for a payment of a fee for use of these facilities you have described?

Mr. Stoddard. There is nothing to prevent it.

Senator Bible. I think that is going to be tightened up, because I can tell you people in my State are going to holler to the high heaven if they are going to be asked to pay a fee.

Senator McGee. And if Nevada does not kill it, Wyoming will.

Senator Bible. Very good. I have an ally. This is a different type of concept than a national park, or lakeshore, or seashore tract, and so I think this should be examined very carefully when it comes before us. But it still has to come from the House to the Senate and then to the Interior Legislative Committee. I am glad you forewarned us by saying there is nothing to prevent it.

Mr. Stoddard. That is up to you.

Senator Bible. We understand. But I appreciate your holding up the flag to warn us.

Mr. Stoddard. I do not mean to pass the buck.

Senator McGee. You are trying to get a buck, not pass it. I think that in regard to the public domain people rightfully expect to have access to it and they are not going to want to pay for such access. Even if they know they are going to have to pay for it as a taxpayer, they do not want to pay for it as recreation users and I think there is a distinction there.

Senator Bible. Thank you, Mr. Chairman.

### Relationship to Bureau of Outdoor Recreation

Senator Mundt. Mr. Chairman, some mention was made of the Bureau of Outdoor Recreation in connection with this discussion.

Just where do they figure in this discussion and what are they doing for you or what are you doing for them? I am not sure of the relationship.

Mr. STODDARD. They were set up, as you know, Senator Mundt, with a series of specific responsibilities, one of which is to coordinate all of the recreational programs within the Federal Government and then develop a correlative program with the States and so on. And the first step has been to make this inventory with which we are cooperating and, are supposed to cooperate with in the field. Then, presumably, what they will do—and the guidelines are still evolving for this—is to give some idea of what is the projection in increase in visitor use of the lands and where will this impact be made; in what areas.

That is so that there is some basis for making decisions with respect to use before the fact rather than after the fact such as where we have use being made and clutter problems developing, pollution problems, and so on.

And they have this coordinating group which then provides this basic information to us and will indicate that so many visitors are in certain areas and that such-and-such an impact will take place on the public lands.

### ORIGIN OF FEE CONCEPT

Senator BIBLE. Were they the originators of this concept to charge the public for entrance into the public domain?

Mr. STODDARD. No, I think that in the national parks is the only place where this has been done, and some of the State parks. This charge involves buying a sticker. Other kinds of charges are not provided for specifically in the act, other than the sticker that goes on your car window, if you go into a public area, This would presumably be there, and many of the States are using this in their parks and forest systems for people actually using them.

Senator MUNDT. Let it appear in the record that the public is invited to use the State parks of the great State of South Dakota for free and we commend that to you as an example.

### FUNDS GENERATED ON PUBLIC DOMAIN

Senator BIBLE. I think that is very important, because it is part of the Secretary's statement and Mr. Stoddard's statement that the public domain, itself, generates something in the neighborhood of $445 million, less a payment of some $70 million to the States, and that $370 million finds its way into the U.S. Treasury. So your agency is showing a profit, because your budget is approximately $49 million. Is that right?

Mr. STODDARD. Yes.

Senator MCGEE. They do not get credit for the profit. It goes into the general treasury.

Senator BIBLE. As an appropriation, I think this is all right; but I think the proposal to charge fees for the use of public domain lands, which do generate revenue, has to be examined very carefully.

Chairman HAYDEN. I will ask you to submit for the record tables showing the accelerated public works in which the Bureau of Land Management has participated in fiscal years 1963 and 1964.

(The information referred to follows:)

## Accelerated Public Works Program, Fiscal Year 1963 (First Appropriation)

Consolidated list of accelerated public works projects for fiscal year 1963, authorized by the Secretary of the Interior from $38 million allocated to the Department of the Interior by the President under authority of Public Law 87-658, approved September 14, 1962.

*Bureau of Land Management*

| State and project | Eligible area and county | Eligibility category | Man-years | Cost (thousand dollars) | Work description |
|---|---|---|---|---|---|
| Alaska | Upper Yukon Election District No. 20. | 5b | 1 | 17 | For construction of 10 family recreation units and 1 mile of road construction at Eagle Lake. |
| | Valdez-Chitina-Whittier Election District No. 8. | 5b | 1 | 18 | For construction of 10 family recreation units, 2 boat docks, and 2 miles of access road at Mankomen Lake. |
| California | Eureka | SU | 15 | 215 | For construction of camp-ground picnic facilities and foot trails in the Kings Range Recreation Area and survey, design, and construction of 5 miles of access road into Kings Range. |
| | Lassen | 5b | 24 | 247 | For construction of 10 family recreation units at Eagle Lake and 20 family units at Post Camp and Painter Flat, and forest stand improvement on 4,300 acres. |
| | Trinity | 5b | 9 | 132 | For the construction of 15 family units at Douglas City, timber stand improvement on 400 acres, and site improvement on 1,000 acres. |
| | Ukiah (Mendocino) | 5a | 8 | 112 | For construction of the Red Mountain access road and forest development on 400 acres. |
| Colorado | Alamosa | 5b | 3 | 46 | Features to be completed are: 7.5 miles of fence, 3 wells, 3 detention dams, 200 check dams, 1,200 acres of chaining and seeding, and 1,000 acres plowing and seeding. |
| | Conejos | 5b | 5 | 80 | For seeding 1,000 acres, 750 acres of brush control, 5 miles of fence, 6 water developments, 2 detention dams, and 300 gully plugs. |
| | Huerfano | 5b | 4 | 37 | Features to be completed are: 7 spring developments, 12 miles of fence, 5 detention dams, 1 well, and 1,000 acres of chaining and seeding. |
| Idaho | Kootenai | 5b | 12 | 81 | Construction of 5 miles of the Latour Creek access road, Killarney Creek Campground, Beauty Bay trails, and acceleration of forest stand and site improvement on 500 acres. |
| | Ontario, Oregon (Payette and Washington Counties, Idaho). | Substantial unemployment. | 9 | 100 | Construction of 15 family units and 5 miles of foot trail at Brownlee Reservoir and acceleration of conservation measures. |
| Montana | Butte (Silver Bow) | do | 8 | 159 | For the fabrication of 318 cattleguards and 318 wooden gates. These items will be used throughout the State in the regular conservation program. |
| | Carbon | 5b | 2 | 43 | For drilling 5 wells, constructing 10 reservoirs and realinement of 10 miles of access roads. |
| Nevada | Lincoln | 5b | 10 | 105 | For the construction of 4 family units at Meadow Valley Wash, road maintenance of Bunker Peak Road, drilling 6 stock wells, and constructing 12 miles of fence. |
| | Mineral | 5b | 9 | 155 | For the construction of 17 family units at 16-Mile Point, 20 family units at Tamrack Point, and the construction of 47 miles of fence. |

| | | | | | |
|---|---|---|---|---|---|
| New Mexico | Grant | 5b | 23 | 122 | For the construction of 450 erosion-control structures, 13,000 acres of mesquite eradication, and 120,000 acres of rodent control. |
| | McKinley | 5b | 8 | 139 | For the construction of 20 livestock wells and storage facilities. |
| | Rio Arriba | 5b | 3 | 50 | For 12 cattleguards, 20 miles of fence, and 5,000 acres of brush control and seeding. |
| | San Juan | 5b | 25 | 400 | For the construction of the Farmington district office and facilities, 5 family units in the Angel Peak Recreation Site, and 20 livestock wells and storage facilities. |
| | Taos | 5b | 50 | 349 | For the development of 6 recreation sites, 4 parking areas and 16 miles of foot trails, realinement of 15 miles of access road in the Rio Grande Recreation Area, construction of 42 miles of fence, and 4,200 acres of brush control and seeding. |
| Oregon | Albany (Linn) | Substantial unemployment. | 7 | 133 | For surfacing 7 miles of the Yellowbottom segment of the Quartzville Road system and acceleration of site improvement measures on 175 acres. |
| | do | do | 9 | 150 | For surfacing 2 miles of Yellowbottom Road, 2.5 miles of the Yellowstone Road, and 3 miles of the Boulder Creek Road. |
| | Gold Beach (Curry) | do | 2 | 23 | For construction of recreation facilities at Sixes River and 185 acres of stand improvement at Bosley and Edson Buttes. |
| | Josephine | 5b | 26 | 206 | For construction of 10 family units at Deer Creek, improving the Rogue River trail, 400 acres of site improvement, 1,000 acres thinning and pruning, and 1,000 acres snag felling. |
| | Klamath Falls (Klamath) | Substantial unemployment. | 24 | 370 | For construction of 30 family units at Gerber Reservoir, surfacing 30 miles of Bonanza Road system, construction of 10 family units at Chase Mountain and Topsy, and site improvement on 3,000 acres and 10 miles of stream clearance. |
| | Lakeview (Lake) | do | 9 | 164 | For construction of 55 miles of fence, 10 livestock reservoirs, 9,000 acres of seeding, and drilling 5 wells. |
| | North Bend-Coos Bay (Coos) | do | 15 | 268 | For grading 4.6 miles on North Fork Coquille Ridge timber access road. |
| | do | do | 22 | 156 | For the construction of 10 family units at each of the following areas: Burnt Mountain Cabin, Park Creek, Bear Creek, and Cherry Creek; pruning and thinning 1,700 acres, and site improvement on 1,050 acres. |
| | Roseburg (Douglas) | do | 11 | 175 | For the grading of 2.4 miles on the West Fork Cow Creek access road. |
| | do | do | 5 | 95 | For grading 2.2 miles of the Little Camp Creek access road. |
| | do | do | 18 | 225 | For grading 3.5 miles of the Union Creek access road. |
| | do | do | 5 | 38 | For the construction of 10 family units at each of the following areas: Darby Creek, Cavitt Falls, Lone Rock, Wolf Creek Trail, and Susan Creek Falls. |
| | Salem (Marion and Polk) | do | 19 | 289 | For construction of recreation sites at Santiam River, Elk Horn Valley, Canyon Creek, and Mill Creek; surfacing 5 miles of Gooseneck Road, 7 miles of Mount Horeb Road; snag felling on 100 acres, precommercial thinning on 300 acres, and construction of 25 family units at Salmon Falls. |
| Utah | Yamhill | 5b | 10 | 140 | For grading 4 miles on the B section of Bald Mountain access road. |
| | Carbon | 5b | 14 | 176 | For replacement of Price office, 14 family units and 2 miles of road in Price Canyon, and cutting 8,000 posts. |
| | Emery | 5b | 5 | 36 | For construction of sanitation and protection facilities at Buckhorn Wedge (2 units), cutting 8,000 juniper posts, and constructing 12 miles of fence. |

*Bureau of Land Management*—Continued

| State and project | Eligible area and county | Eligibility category | Man-years | Cost (thousand dollars) | Work description |
|---|---|---|---|---|---|
| Utah | Garfield | 5b | 24 | 225 | For construction of 9 family units at Relishing Seep and Calf Springs, 10 family units at Saw Mill Basin, 7 family units at McMillan Springs, grading 7 miles of Escalante Canyon access road, site improvement on 5,000 acres, pruning and thinning on 1,500 acres, construction of 20 miles of stock trails, 7 miles of horse trails, and 6 miles of fence, and cutting 15,000 juniper posts. |
| | Juab | 5b | 8 | 115 | For constructing 38 miles of fence, fabricating and installing 6 cattle guards, and 2,700 acres of seeding. |
| | Provo-Orem (Utah) | Substantial unemployment. | 16 | 105 | For the cutting of 25,000 juniper posts, constructing 20 miles of fence, fabrication and installing cattleguards, 300 check dams, and 6 spring developments. |
| | St. George (Washington) | do | 24 | 268 | For the construction of 105 miles of fence, 4,000 acres of brush control, 2 stock wells, 15 spring developments, and acceleration of other conservation measures. |
| | San Juan | 5b | 6 | 75 | For the construction of recreation facilities at Anticline Overlook, Canyonlands Panorama, Needles View Point, and Hatch Point. These recreation sites lie along the east rim of the Colorado River within the buffer zone surrounding the proposed Canyonlands National Park. |
| | do | 5b | 18 | 350 | For construction and/or realinement of 47 miles of access road. |
| | Sanpete | 5b | 4 | 32 | For constructing 20 miles of fence and installing 5 cattleguards. |
| Wyoming | Rock Springs (Sweetwater) | Substantial unemployment. | 7 | 116 | For construction of 50 miles of fence on W-3–W-4 boundary, 10 miles of Antelope Study fence, 8 family recreation units at 14-Mile Reservoir, 10 miles of Vermillion Division fence and 8 miles of Dobie Town boundary fence. |
| Total, Bureau of Land Management | | | 537 | 6,537 | |

## Accelerated Public Works Program—Supplemental Appropriation Act, 1963

Consolidated list of accelerated public works projects authorized by the Secretary of the Interior from $25 million allocated to the Department by the President under the Supplementary Appropriation Act, passed May 28, 1963, under authority of Public Law 87-658, approved September 14, 1962.

*Bureau of Land Management*

| State and project | Eligible area and county | Eligibility category | Man-years | Cost (thousand dollars) | Work description |
|---|---|---|---|---|---|
| Alaska | Anchorage Election District No. 8 | 5a | 3 | 50 | For construction of protection and sanitation facilities at Eklutna Lake. |
| | Cordova-Valdez Election District No. 6. | 5b | 2 | 18 | For construction of protection and sanitation facilities at Miles Lake. |
| | Palmer-Wasilla-Talkeetna Election District No. 7. | 5b | 2 | 18 | For construction of protection and sanitation facilities at Bayer Lake. |
| | Fairbanks-Fort Yukon Election District No. 16. | 5b | 3 | 35 | For construction of office, fire warehouse, and garage at Fort Yukon. |
| | Yukon-Kuskokwim Election District No. 15. | 5b | 3 | 42 | For the construction of the Galena fire control station. |
| | Bethel Election District No. 14 | 5b | 3 | 35 | For the construction of fire office, garage, and warehouse at Bethel. |
| | Fairbanks-Fort Yukon Election District No. 16. | 5b | 1 | 17 | For the construction of fire warehouse and garage at Central. |
| California | Lassen | 5b | 3 | 58 | For reforestation of 1,545 acres. |
| | Siskiyou | 5b | 2 | 17 | For timber stand improvement on 500 acres.<br>Hazard reduction on 60 acres. |
| | Trinity | 5b | 11 | 171 | For grading 6 miles of Brock Gulch access road.<br>For 5 family units at Douglas City campground.<br>Timber stand improvement on 400 acres.<br>Reforestation, 250 acres.<br>Hazard reduction, 40 acres.<br>Road realinement, 10 miles. |
| | Plumas | 5b | 1 | 16 | Forest site preparation, 315 acres. |
| | Visalia (Tulare County) | Substantial unemployment. | 21 | 322 | Grading 11 miles of Long Valley Road. Construction of 50 family units at Long Valley and Kennedy Meadows. |
| | do | do | 16 | 255 | For construction of 6 miles of Lamont Meadows and 3 miles of the Rockhouse road. |
| | Redding (Shasta County) | do | 4 | 54 | For surfacing 7 miles of Cinder Cone access road, 1,200 acres of reforestation, road realinement and grading, 10 miles. |
| | Sonora (Tuolumne County) | do | 7 | 110 | For grading 5 miles of Big Jackass Creek Road. |
| | Ukiah (Mendocino County) | do | 1 | 5 | For 30 acres of site improvement.<br>Firebreaks 2 miles.<br>Forest pest control on 260 acres. |

*Bureau of Land Management*—Continued

| State and project | Eligible area and county | Eligibility category | Man-years | Cost (thousand dollars) | Work description |
|---|---|---|---|---|---|
| California | Eureka (Humboldt County) | Substantial unemployment. | 23 | 293 | For construction of foot trails and additional protection and sanitation facilities in Kings Range.<br>Road construction 5 miles.<br>Hazard reduction on 1,500 acres.<br>Firebreaks 4 miles.<br>Forest pest control on 500 acres. |
| Colorado | Conejos | 5b | 1 | 8 | Site preparation and tree planting 40 acres.<br>Mistletoe control and seed collection of 50 pounds of forest tree seed. |
| | Creede (Mineral County) | Substantial unemployment. | 1 | 3 | For the collection of 200 pounds of forest tree seed. |
| | Dove Creek (Dolores County) | do | 2 | 19 | Site improvement, 60 acres.<br>Collecting 250 pounds of forest tree seed.<br>Reforestation, 50 acres. |
| | Huerfano | 5b | 1 | 6 | For 120 acres of site improvement. |
| | Montezuma | 5b | 2 | 16 | For gathering 250 pounds of forest tree seed.<br>Reforestation, 50 acres.<br>Hazard reduction, 100 acres.<br>Firebreaks, 10 miles. |
| | Pagosa Springs (Archuleta County) | Substantial unemployment. | 4 | 42 | For 150 acres of site improvement.<br>Reforestation, 150 acres.<br>Protective fence for protection of new forest planting projects, 3 miles.<br>Forest road realinement.<br>Hazard reduction, 120 acres.<br>Firebreaks, 10 miles. |
| Idaho | Benewah | 5b | 6 | 77 | For grading 9 miles of the St. Joe forest access road.<br>Protection and sanitation facilities at Tingley Spring. 5 family units.<br>Timber stand improvement, 25 acres. |
| | Bonner | 5b | 1 | 17 | Protection and sanitation facilities, Pack River View Point, 10 family units.<br>Timber stand improvement, 100 acres.<br>Hazard reduction, 50 acres.<br>Collecting 100 pounds of forest seed. |
| | Boundary | 5b | 1 | 13 | For timber stand improvement on 50 acres.<br>Collecting 100 pounds of forest tree seed. |
| | Idaho | 5b | 1 | 15 | For the construction of protection and sanitation facilities at Skoockum-chuck Creek. |
| | Kootenai | 5b | 6 | 94 | For the construction of 12 miles of forest access roads.<br>Protection and sanitation facilities at Mirror and Crystal Lakes, 20 family units. |

| | | | | | |
|---|---|---|---|---|---|
| | Mountain Home (Elmore County) | Substantial unemployment. | 4 | 41 | For the construction of Bennett Mountain lookout.<br>Grading 9.5 miles of forest spur roads.<br>Timber stand improvement on 500 acres. |
| Montana | Butte (Silver Bow County) | 5a | 1 | 6 | For the location and construction of 7 miles of firebreaks and trails. |
| | Carbon | 5b | 1 | 15 | Hazard reduction, 100 acres.<br>Firebreaks, 4 miles. |
| Nevada | Mineral | 5b | 8 | 93 | For the construction of the Corey Peak repeater station.<br>Grading 5 miles of timber access roads.<br>Realinement and surfacing of 20 miles of forest access roads. |
| | Lincoln | 5b | 24 | 213 | For the construction of fire office and warehouse to contain firefighting equipment at Caliente.<br>Construction of the Caliente lookout.<br>Timber stand improvement, 2,000 acres.<br>Reforestation, 500 acres.<br>Realinement and surfacing of timber access road, 75 miles. |
| | Goldfield (Esmeralda County) | Substantial unemployment. | 5 | 35 | Realinement and surfacing of 30 miles of forest access roads. |
| New Mexico | Catron | 5b | 4 | 25 | For 2,500 acres of hazard reduction and mistletoe control. |
| | Taos | 5b | 3 | 52 | Timber stand improvement on 1,500 acres.<br>Reforestation, 200 acres.<br>Hazard reduction, 4,100 acres. |
| | Valencia | 5b | 4 | 25 | Site improvement, 640 acres.<br>Hazard reduction, 1,280 acres. |
| Oregon | Josephine | 5b | 16 | 190 | For construction of protection and sanitation facilities and improvement of the Rogue River trail.<br>Collection of 4,000 pounds of forest tree seed.<br>Hazard reduction, 2,800 acres. |
| | do | 5b | 15 | 355 | For grading 6 miles of D section of Galice forest access road. |
| | Wasco | 5b | 2 | 25 | Reforestation, 60 acres. Hazard reduction, 15 acres. Realinement and surfacing of 10 miles of forest access road. |
| | Lakeview (Lake County) | Substantial unemployment. | 1 | 10 | For construction of the Green Mountain Lookout. |
| | North Bend-Coos Bay (Coos County) | do | 9 | 104 | For site improvement on 150 acres.<br>Reforestation, 150 acres.<br>Hazard reduction, 1,350 acres.<br>Firebreaks, 80 miles.<br>Fence, 20 miles for protection of forest seedling.<br>Forest road realinement and surfacing, 34 miles. |
| | North Bend-Coos Bay | do | 15 | 245 | For grading 7 miles of the Elk Creek access road. |
| | Rosebury (Douglas County) | do | 32 | 300 | For construction of protection and sanitation facilities at Wolf Creek and Little River, clearing down timber from Loon Lake recreation site.<br>Site improvement on 300 acres.<br>Timber stand improvement, 280 acres.<br>Reforestation on 3,800 acres.<br>Hazard reduction on 1,500 acres.<br>Firebreaks, 100 miles.<br>Fence to protect forest seedlings, 61 miles.<br>Realinement and surfacing of forest roads 41, miles. |
| | Bend (Deschutes County) | do | 8 | 87 | For grading 21 miles of timber access roads in La Pine area.<br>Timber stand improvement on 800 acres.<br>Protective fence, 1 mile. |
| | Columbia | 5b | 2 | 22 | For the construction of 10 family units at Scaponia recreation area. |

*Bureau of Land Management*—Continued

| State and project | Eligible area and county | Eligibility category | Man-years | Cost (thousand dollars) | Work description |
|---|---|---|---|---|---|
| Oregon | Yamhill | 5b | 6 | 48 | Site improvement on 1,000 acres.<br>Timber stand improvement on 160 acres.<br>Reforestation on 440 acres.<br>Gathering 1,000 pounds of forest tree seed. |
| | Albany (Linn County) | Substantial unemployment. | 5 | 40 | Site improvement on 120 acres.<br>Timber stand improvement on 160 acres.<br>Reforestation on 710 acres.<br>Gathering 700 pounds of forest tree seed.<br>Forest pest control on 160 acres.<br>Realinement and surfacing 5 miles of timber access road. |
| | Klamath Falls (Klamath County) | do | 4 | 51 | For the construction of the Brian Mountain Lookout.<br>Reforestation on 200 acres.<br>Hazard reduction on 1,640 acres.<br>Forest pest control, 3,000 acres. |
| | Salem (Marion County) | do | 12 | 122 | For expansion of protection and sanitation facilities at Fisherman's Bend.<br>Timber stand improvement, 160 acres.<br>Reforestation on 490 acres.<br>Gathering 500 lb. of forest tree seed.<br>Hazard reduction on 2,000 acres. |
| | North Bend-Coos Bay (Douglas County. | do | 12 | 175 | For construction of 3 miles of the Union Creek timber access road. |
| Utah | Beaver | 5b | 3 | 50 | Realinement and grading of 30 miles of access roads. |
| | Carbon | 5b | 2 | 18 | Site improvement on 515 acres. Forest pest control on 40 acres. |
| | Emery | 5b | 4 | 62 | Fire control access road, 15 miles. |
| | Roosevelt (Duchesne County) | Substantial unemployment. | 3 | 43 | For construction of 5 miles of timber access road.<br>Timber stand improvement on 460 acres. |
| Wyoming | Big Horn | 5b | 4 | 35 | Site improvement 1,000 acres. |
| | Lincoln | 5b | 2 | 30 | For construction of the Kemmerer warehouse. |
| | Buffalo (Johnson County) | Substantial unemployment. | 3 | 47 | For construction of 5 miles of the Billy Creek forest access road. |
| | Evanston (Unita County) | do | 14 | 110 | For grading 30 miles of road to provide access to an area for control of forest insects.<br>Forest pest control on 10,000 acres.<br>Timber stand improvement on 500 acres. |
| Total, Bureau of Land Management | | | 360 | 4,500 | |

ESTIMATES FOR OREGON AND CALIFORNIA GRANT LANDS

Chairman HAYDEN. At this point in the record I will include your justification of appropriations of funds for Oregon and California grant lands in the amount of $8,250,000; for funds for range improvements in the amount of $1,523,000; and your statement with regard to administrative provisions, specifically the purchase of seven passenger motor vehicles for replacement, and one additional aircraft.

(The information referred to follows):

JUSTIFICATION

BUREAU OF LAND MANAGEMENT

*Oregon and California grant lands*

| | | |
|---|---|---|
| Appropriation 1964 | | $9,000,000 |
| Unobligated balance from prior years | | 2,546,524 |
| Total available for obligation | | 11,546,524 |
| Decreases: | | |
| Construction and acquisition of access roads | $9,611,783 | |
| Forest development and protection | 1,240,000 | |
| Operation and maintenance | 694,741 | |
| | | 11,546,524 |
| Subtotal | | 0 |
| Increases: | | |
| Construction and acquisition of access roads | $5,750,000 | |
| Forest development and protection | 1,800,000 | |
| Operation and maintenance | 700,000 | |
| | | 8,250,000 |
| Budget estimate, 1965 | | 8,250,000 |

OREGON AND CALIFORNIA GRANT LANDS

*Analysis by activities*

| Activity | Amount available, 1964 | Fiscal year 1965 | | | Total available, 1965, compared to total available, 1964 |
|---|---|---|---|---|---|
| | | Unobligated balance from prior years | Budget estimate | Estimated total available | |
| 1. Construction and acquisition | $9,611,783 | | $5,750,000 | $5,750,000 | −$3,861,783 |
| 2. Forest development and protection | 1,240,000 | | 1,800,000 | 1,800,000 | +560,000 |
| 3. Operation and maintenance | 694,741 | | 700,000 | 700,000 | +5,259 |
| Total | 11,546,524 | | 8,250,000 | 8,250,000 | −3,296,524 |

Under this title an amount equivalent to 25 percent of the gross receipts from sales of timber and other products on the revested Oregon and California railroad grant lands is appropriated as a reimbursable charge against the Oregon and California land grant fund.

It provides for the construction, acquisition, operation and maintenance of access roads and improvements and for forest protection and development on the revested Oregon and California railroad grant lands and on other Federal lands in the Oregon and California land grant counties of Oregon.

Existing legislation provides that the O. & C. counties shall receive, in lieu of tax payments, up to 75 percent of the gross revenues from these lands. The Association of O. & C. Counties has recommended that one-third of the amount due from receipts, or 25 percent of the total gross receipts, be appropriated for the development of these lands and be reimbursed to the Treasury from funds otherwise payable to the counties.

*1. Construction and acquisition, $5,750,000*

This activity provides for construction and acquisition of access roads and recreation facilities. The construction of recreation facilities previously has been included in the second activity. Details of the estimates follow:

(*a*) *Access roads.*—This estimate of $5,076,000 is a decrease of $1,410,000 from the amount available in 1964, exclusive of carryover funds in the amount of $2,415,888. The program is for the construction of access roads in the valuable timberlands in western Oregon. In addition to the actual construction and improvement of roads, the estimate provides for the determination of future access routes to tap timber resources as well as the acquisition of easements, rights-of-way and privately owned roads either by agreement or condemnation. At the end of fiscal year 1963, 403 miles of mainline access roads have been completed and 101 miles were under construction. Specific accomplishments under the program in fiscal year 1965 will be the grading of 14 miles; surfacing 48 miles; bridge construction; and rock production for road surfacing. In addition, 74 miles of road will be purchased. Acquisition of 200 easements will be accomplished for planned road construction.

Basic to the realization of the full allowable cut on lands in western Oregon, with attendant benefit locally and nationally, is the development of an access system on a planned and orderly basis. Lack of ability to provide such access in a timely manner results in the disruption of finely balanced schedules for cutting. It is imperative that mature, overmature, decadent, and salvage timber be removed according to plan in order to convert the valuable timberlands of western Oregon to well managed and regulated stands producing maximum wood fiber. This can be accomplished only if the timber can be reached by proper road systems.

In addition to their value for providing transportation routes for the proper harvest of Federal timber, they also serve as a means of ingress and egress for fire protection, recreation, transport of privately owned timber, and other purposes.

Details of the program are given in the following tables:

*Status of appropriations for access roads, fiscal years 1951 through 1963*

| | | |
|---|---|---|
| Amount appropriated | | $50,247,150 |
| Available to Bureau of Public Roads | $41,927,569 | |
| Available to Bureau of Land Management | 7,022,165 | |
| Available to Forest Service | 1,297,416 | |
| Obligations 1951–63 | | 47,831,262 |
| Bureau of Public Roads | $40,367,755 | |
| Bureau of Land Management | 6,837,021 | |
| Forest Service | 626,486 | |
| Unobligated balance, June 30, 1963 | | 2,415,888 |
| Bureau of Public Roads | $1,559,814 | |
| Bureau of Land Management | 185,144 | |
| Forest Service | 670,930 | |
| Amount appropriated | | 50,247,150 |

*Fiscal year 1964 program*

| | | |
|---|---|---|
| Availability: | | |
| Unobligated balance as of June 30, 1963, brought forward | | $2,415,888 |
| 4th quarter 1963 receipts warranted in July 1963 | | 2,062,500 |
| Estimated authorization, fiscal year 1964 | | 6,486,000 |
| Less estimated 4th quarter 1964 receipts warranted in July 1964 | | 2,062,500 |
| Available for 1964 program | | 8,901,888 |
| Utilization: | | |
| Bureau of Land Management: | | |
| Planning, reconnaissance | $460,000 | |
| Acquisition | 500,144 | |
| | | 960,144 |
| Bureau of Public Roads: | | |
| Surveys | 491,805 | |
| Construction | 6,203,009 | |
| | | 6,694,814 |
| Forest Service | | 1,246,930 |
| Total 1964 program | | 8,901,888 |

*Details of construction program, BLM lands, fiscal year 1964*

| | |
|---|---|
| Continued work on going projects | $871,352 |
| Rock Creek B and C, grading 10 miles | 1,120,000 |
| Keno A and B, surfacing 28 miles | 1,030,000 |
| Keno C, grading 3 miles | 110,000 |
| Nestucca River, reconstruction and bridge, 6 miles | 550,000 |
| Agency Creek, surfacing 9 miles | 290,000 |
| Clark Creek, surfacing 9 miles | 320,000 |
| Big River-Elk Meadows, surfacing 18 miles | 450,000 |
| Canton Creek B and C, surfacing 18 miles | 520,000 |
| Cow Creek C, grading 3 miles | 305,000 |
| Miscellaneous rock production | 576,657 |
| Miscellaneous small bridges | 60,000 |
| Total, 1964 construction program, BLM lands | 6,203,009 |

*Fiscal year 1965 program*

| | | |
|---|---|---|
| Availability: | | |
| Estimated 4th quarter receipts warranted in July 1964 | | $2,062,500 |
| Estimated authorization, fiscal year 1965 | | 5,076,000 |
| Less estimated 4th quarter 1965 receipts warranted in July 1965 | | 2,062,500 |
| Available for 1965 program | | 5,076,000 |
| Utilization: | | |
| Bureau of Land Management: | | |
| Planning, reconnaissance | $485,000 | |
| Acquisition | 936,000 | |
| | | 1,421,000 |
| Bureau of Public Roads: | | |
| Surveys | 250,000 | |
| Construction | 2,829,000 | |
| | | 3,079,000 |
| Forest Service | | 576,000 |
| Total, 1965 program | | 5,076,000 |

*Details of construction program, BLM lands, fiscal year 1965*

| | |
|---|---|
| Bald Mountain B, surfacing, 7 miles | $274,000 |
| Bald Mountain A, grading, 8 miles | 300,000 |
| Cow Creek A and B, surfacing, 19 miles | 430,000 |
| South Fork Alsea B, grading, 6 miles | 415,000 |
| Burnt Mountain C, surfacing, 9 miles | 370,000 |
| Burnt Mountain B, surfacing, 13 miles | 445,000 |
| Miscellaneous rock production | 525,000 |
| Miscellaneous small bridges | 70,000 |
| Total, 1965 construction program, BLM Lands | 2,829,000 |

(*b*) *Recreation facilities.*—The estimate of $674,000 is an increase of $25,000 over the amount available in fiscal year 1964 exclusive of carryover funds. Of the total amount $424,000 is programed for facilities to be developed by the Forest Service on lands in the O. & C. counties that are administered by that agency—$250,000 is programed for development of the south jetty road project by this Bureau. This 5-mile road, south of Florence, Oreg., will provide general access for the public to nearly 5 miles of excellent sandy ocean beach near the south jetty of the Siuslaw River. This project is scheduled in fiscal year 1965 as a recreation development.

*2. Forest development and protection, $1,800,000*

(*a*) *Forest development.*—The estimate includes $1,100,000 which is an increase of $400,000 over the amount provided from this appropriation for this purpose in fiscal year 1964. As $150,000 was provided from the appropriation, "Management of lands and resources," in 1964, the net program increase proposed is $250,000.

It is estimated that this program will provide for the reforestation of 34,500 acres. Timber growth to be obtained by this effort is estimated to be 17 million board feet annually, valued by current market prices at $425,000. At best, only one-half of the area scheduled for reforestation could be expected to regenerate naturally in about 10 years, and that only where natural seed source is available. Thus, if the reforestation schedules are not met, a total growth loss valued at over $2 million could result over the next decade. Total employment in the lumbering industry resulting from the 1965 reforestation effort in western Oregon is estimated to be 900 man-years annually and will contribute nearly $11 million yearly to the gross national product. The direct contribution of the actual 1965 reforestation projects to the western Oregon labor force is an estimated 78 man-years, with a payroll of more than $400,000. Overshadowing these economic considerations is the critical topsoil loss through erosion and the siltation of streams and reservoirs which will result unless reforestation holds the soil in place.

Programing at this level will eliminate the backlog acreage needing reforestation on O. & C. lands, will complete reforestation plans and surveys on PD and CBWR lands, and will result in the reduction of the reforestation backlog on PD and CBWR lands by approximately 45 percent. By the end of 1967 all reforestation backlog in western Oregon will be eliminated and the 1968 fiscal year will see the forest development program on a maintenance basis if present schedules are met.

This program includes site improvement work (primarily brush clearing) necessitated by previous delays in reforestation work. Such delays result in added site improvement requirements and increased total costs of reforestation. Failure to place the depleted acreage back into timber production within the prescribed period incorporated in the calculation of the allowable cut can result only in a commensurate future reduction in the allowable cut. Adherence to the principles of sustained yield management precludes the cutting of mature growing stock at a faster rate than cutover areas are restored to productivity. The reforestation program for western Oregon is as follows:

| | Acres | Amount |
|---|---|---|
| Plans and surveys | 123,000 | $100,000 |
| Site improvement | 9,000 | 189,000 |
| Reforestation | 34,500 | 811,000 |
| Total | | 1,100,000 |

(*b*) *Forest protection*

The estimate includes $700,000 for this program which is proposed under this appropriation in fiscal year 1965. As $774,000 was provided from the appropriation, "Management of lands and resources," in 1964, a program decrease of $74,000 is proposed.

Contracts for fire protection are negotiated with the State of Oregon and the Forest Service on a rate per acre that is based on their costs for fire suppression, maintenance, replacement, and addition to facilities and equipment, and the prevention program. The Bureau contributes to presuppression and control measures by removing snags, slash disposal, and development of fire trails and fuel breaks.

Through accelerated public works projects a large portion of the snag felling has been accomplished. Continuance of snag felling will be done wherever appropriate through sales and development work. However, outside of planned development and sales areas, snag felling will be necessary as a hazard reduction measure. The program for fiscal year 1965 assumes that salvage timber sales will be sufficiently completed by June 1964 to preclude the existence of serious fire hazard areas in 1965 due to windthrown timber. The program estimate is as follows:

| | |
|---|---|
| Contract protection | $626,000 |
| Snag felling, slash disposal, fire trails, and fuel breaks | 48,000 |
| Supervision and inspection | 26,000 |
| Total | 700,000 |

(c) *Forest management.*—No estimate is provided for this purpose in fiscal year 1965 under this appropriation. During fiscal year 1964, $540,000 was provided from this appropriation toward the financing of forest management activity normally financed from the appropriation, "Management of lands and resources." Details of this program are discussed in the western Oregon section of the "Forestry" activity under that appropriation.

(d) *Recreation facilities.*—Construction of recreation facilities, formerly included in this activity, appears in the first activity, "Construction and acquisition," in the fiscal year 1965 estimates.

*3. Operation and maintenance, $700,000*

This estimate provides for maintenance of constructed and acquired access roads and recreation facilities. The increase of $75,000 over the amount available in fiscal year 1964, exclusive of carryover funds, is necessary to adequately protect existing and newly constructed roads which in turn assure the efficient use and management of the lands and resources.

Effectual road maintenance is essential in western Oregon to negate the need for extensive repairs to protect existing capital investments. Roads receive heavy logging use during the rainy season. If these roads are inadequately maintained, they are highly susceptible to rapid deterioration, slides, and washouts. Repair costs can be materially greater than initial construction. Washouts alone can entail considerable relocation of adjacent undamaged segments of the affected road, and require additional easement acquisition. Both purchasers of Government timber and private timber owners are dependent upon the network of roads constructed by the Bureau. Temporary road closure due to improper maintenance can prevent replenishing depleted mill log inventories during the critical winter and spring months, resulting in hardship to loggers and mill operators.

In addition to maintenance performed with appropriated funds, fees for road maintenance are paid by purchasers of Government timber as a condition of timber sale contracts and by timber haulers using the roads under permits.

An amount of $50,000 is included in this estimate for maintenance of recreation facilities and includes disposing of garbage, maintaining firewood supplies, servicing sanitary facilities, repairing and maintaining equipment, and testing water supplies.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $7,897,382 | $11,546,524 | $8,250,000 | −$3,296,524 |
| Unobligated balance brought forward | −2,740,881 | −2,546,524 | | +2,546,524 |
| Unobligated balance carried forward | 2,546,524 | | | |
| Appropriation | 7,703,025 | 9,000,000 | 8,250,000 | −750,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 1,305,885 | 1,625,810 | 1,551,000 | −74,810 |
| 12 Personnel benefits | 86,005 | 109,772 | 106,000 | −3,772 |
| 21 Travel and transportation of persons | 151,084 | 157,000 | 150,000 | −7,000 |
| 22 Transportation of things | 42,552 | 45,000 | 45,000 | |
| 23 Rent, communications, and utilities | 33,085 | 35,000 | 38,000 | +3,000 |
| 24 Printing and reproduction | 3,749 | 7,000 | 7,000 | |
| 25 Other services | 1,219,584 | 1,697,573 | 1,927,000 | +229,427 |
| Services of other agencies | 415,000 | 413,700 | 394,000 | −19,700 |
| 26 Supplies and materials | 357,341 | 414,300 | 413,000 | −1,300 |
| 31 Equipment | 68,005 | 76,000 | 76,000 | |
| 32 Lands and structures | 4,214,903 | 6,976,369 | 3,543,000 | −3,433,369 |
| 42 Insurance claims and indemities | 189 | | | |
| Subtotal | 7,897,382 | 11,557,524 | 8,250,000 | −3,307,524 |
| Deduct portion of foregoing obligations originally charged to object class 32 | | −11,000 | | +11,000 |
| Total obligations | 7,897,382 | 11,546,524 | 8,250,000 | −3,296,524 |

## Bureau of Land Management

*Range improvements (receipt limitation)*

| | |
|---|---|
| Appropriation, 1963 | $696,525 |
| Estimate, 1964 | 1,247,730 |
| Estimate, 1965 | 1,523,000 |
| Increase | +275,270 |

*Need for increase.*—This estimate is an increase of $275,000 over 1964 which reflects an anticipated increase in grazing fee receipts. This is an annual indefinite appropriation derived from grazing fee receipts in accordance with sections 4 and 10 of the Taylor Grazing Act (48 Stat. 1269), as amended. Included also, are receipts from Bankhead-Jones Farm Tenant Act lands transferred from the Department of Agriculture by Executive Order 10787, dated November 6, 1958.

*Plan of work.*—Approximately 178 million acres of public grazing lands which includes over 2 million acres of Bankhead-Jones lands will require range improvements to preserve the forage resources. Twenty-five percent of grazing fee receipts from public lands outside grazing districts and Bankhead-Jones lands and 33⅓ percent of receipts from grazing lands inside grazing districts are designated as a range improvement fund which is applied to improvements on the range. Receipts in fiscal year 1965 are estimated at $5,170,000 which includes the sum of $570,000 from Bankhead-Jones lands.

*Status of program.*—This is a continuing program for maintenance, construction, and purchase of range improvements as an aid in obtaining conservation and use of the forage resource on the public lands, by such measures as drift and boundary fences, development of stock watering places, reseeding, etc.

The appropriation is distributed as follows:

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase |
|---|---|---|---|---|
| Public lands | $646,974 | $1,187,377 | $1,383,000 | $195,623 |
| Farm Tenant Act lands | 49,551 | 60,353 | 140,000 | 79,647 |
| Total | 696,525 | 1,247,730 | 1,523,000 | 275,270 |

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase(+) or decrease(−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $820,300 | $1,265,000 | $1,550,000 | +$285,000 |
| Unobligated balance brought forward | −364,462 | −240,687 | −223,417 | +17,270 |
| Unobligated balance carried forward | 240,687 | 223,417 | 196,417 | −27,000 |
| Appropriation | 696,525 | 1,247,730 | 1,523,000 | +275,270 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 281,496 | 397,604 | 465,000 | +67,396 |
| 12 Personnel benefits | 13,466 | 19,991 | 24,000 | +4,009 |
| 21 Travel and transportation of persons | 22,896 | 54,005 | 75,000 | +20,995 |
| 22 Transportation of things | 35,448 | 43,295 | 48,000 | +4,705 |
| 23 Rent, communications, and utilities | 2,190 | 4,644 | 5,000 | +356 |
| 24 Printing and reproduction | 944 | 2,175 | 2,000 | −175 |
| 25 Other services | 191,086 | 356,770 | 466,000 | +109,230 |
| 26 Supplies and materials | 243,151 | 309,616 | 380,000 | +70,384 |
| 31 Equipment | 29,623 | 76,900 | 85,000 | +8,100 |
| Total obligations | 820,300 | 1,265,000 | 1,550,000 | +285,000 |

## Administrative Provisions

*Passenger motor vehicles*

Authorization is requested for purchase of seven passenger vehicles for replacement only. All of the vehicles to be replaced will have met the standards as to age or mileage.

These vehicles are for use by field personnel in the administration of public grazing lands, forest management, and fire suppression in widely scattered areas, by field examiners and surveyors in the performance of investigations and surveys, and by supervisory personnel.

One station wagon is included in the request. It will be used principally by cadastral engineers where the job requirements involve extensive driving and the hauling of personnel, scientific instruments, and field equipment.

Vehicles to be purchased:

| | |
|---|---|
| Number | 7 |
| Gross cost | $11,350 |

Old vehicles to be exchanged:

| | |
|---|---|
| Number | 7 |
| Allowance | $1,300 |
| Net cost | $10,050 |

*Aircraft*

Authorization also is requested for the purchase of one additional aircraft.

Aircraft purchased by the Bureau are used only in Alaska. They are necessary for photogrammetric surveys, fire patrol, and for transporting smokejumpers, firefighters, and equipment and for transportation of forest management, cadastral survey and field examiner personnel.

Aircraft to be purchased:

| | |
|---|---|
| Number | 1 |
| Gross cost | $80,000 |

Chairman HAYDEN. If you have any comments on any of these matters, the committee will be glad to hear them now.

Mr. STODDARD. We have no comment other than the explanation.

ESTIMATE FOR PUBLIC LANDS, ROADS, AND TRAILS

Chairman HAYDEN. There will be printed in the record your estimate of $2 million for fiscal year 1965 for public lands, development roads, and trails. This is an increase of $1,240,000 over the amount appropriated in fiscal year 1964.

(The information referred to follows:)

BUREAU OF LAND MANAGEMENT—PUBLIC LANDS DEVELOPMENT ROADS AND TRAILS (liquidation of contract authorization)

*Statement relating 1963 and 1964 appropriation to 1965 estimate*

| | |
|---|---|
| 1964 appropriation in annual act | $760,000 |
| Decrease in construction of roads and trails | 760,000 |
| Subtotal | |
| Increase in construction of roads and trails | 2,000,000 |
| Total estimate for 1965 | 2,000,000 |

*Analysis by activities*

| Activities | 1963 | 1964 | Decreases | Increases | 1965 |
|---|---|---|---|---|---|
| Public lands development roads and trails | | $760,000 | $760,000 | $2,000,000 | $2,000,000 |

*Contract authorization and liquidation program*

| | Contract authority available | Obligations | Unliquidated obligations, prior year | Total obligations | Expenditures | Unliquidated obligations carried forward |
|---|---|---|---|---|---|---|
| Fiscal year 1963: Public lands development, roads and trails (total) | $2,000,000 | ---------- | ---------- | ---------- | ---------- | ---------- |
| Fiscal year 1964: Public lands development, roads and trails (total) | 6,000,000 | $2,000,000 | ---------- | $2,000,000 | $760,000 | $1,240,000 |
| Fiscal year 1965: Public lands development, roads and trails (total) | 6,000,000 | 2,000,000 | $1,240,000 | 3,240,000 | 2,000,000 | 1,240,000 |

*Status of cash authorization for liquidation of contract authorization*

| | 1963 | 1964 | 1965 |
|---|---|---|---|
| Appropriation | ---------- | $760,000 | $2,000,000 |
| Unexpended balance brought forward | ---------- | ---------- | ---------- |
| Total available | ---------- | 760,000 | 2,000,000 |
| Less: Expenditures | ---------- | 760,000 | 2,000,000 |
| Unexpended balance | ---------- | ---------- | ---------- |

*Need for funds.*—The Federal Aid Highway Act, 1962, authorizes a $4 million program for "Public lands development, roads and trails." However, only $2 million of this authorization is scheduled for use in fiscal year 1965. During fiscal years 1964 and 1965, the first 2 years of this program, $4 million will be available for obligation. Requests for liquidating cash for these 2 years total $2,760,000, or two-thirds of obligations to be incurred. As many of the road projects of this Bureau are relatively small, progress is rapid once work is initiated. Adequate liquidating cash must be available so that scheduled projects can be undertaken.

The public land roads and trails program reflects the needs of the resource management programs for better access to public land areas. Road systems are essential to the proper conduct of forestry, range, watershed, wildlife, outdoor recreation, and resource protection programs.

Timber sales of commercial stands of timber are dependent upon access. Range management and watershed conservation programs can be conducted much more efficiently with permanent roads. Fire protection will be improved. The elapsed time between detection and arrival of firefighting crews quite frequently determines the final size of the fire, the extent of suppression effort and cost, and the degree of damage that results to the land base and its resource potential. Access roads also permit increased recreational use of public lands by hunters, fishermen, and the general public.

This estimate provides for grading 160 miles, surfacing 24 miles, and advanced survey and design work on 139 miles to be scheduled for construction in subsequent years.

A summary of the road program by State follows:

| | |
|---|---|
| Arizona | $118,000 |
| California | 401,000 |
| Colorado | 150,000 |
| Idaho | 152,000 |
| Montana | 88,000 |
| Nevada | 68,000 |
| New Mexico | 67,000 |
| Oregon | 319,000 |
| Utah | 253,000 |
| Wyoming | 127,000 |
| Acquisition of roads and easements | 80,000 |
| Location, survey, design | 177,000 |
| Total | 2,000,000 |

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | ---------- | $2,000,000 | $2,000,000 | ---------- |
| Unobligated balance brought forward (contract authorization) | ---------- | −2,000,000 | −4,000,000 | −$2,000,000 |
| Unobligated balance carried forward (contract authorization) | $2,000,000 | 4,000,000 | 4,000,000 | ---------- |
| Unfunded balance at beginning of year | ---------- | 2,000,000 | 5,240,000 | +3,240,000 |
| Unfunded balance at end of year | −2,000,000 | −5,240,000 | −5,240,000 | ---------- |
| Appropriation to liquidate contract authorization | ---------- | 760,000 | 2,000,000 | +1,240,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | ---------- | 320,025 | 354,000 | +33,975 |
| 12 Personnel benefits | ---------- | 20,055 | 24,000 | +3,945 |
| 21 Travel and transportation of persons | ---------- | 68,979 | 82,000 | +13,021 |
| 22 Transportation of things | ---------- | 17,745 | 18,000 | +255 |
| 23 Rent, communications, and utilities | ---------- | 5,289 | 5,000 | −289 |
| 24 Printing and reproduction | ---------- | 3,200 | 3,000 | −200 |
| 25 Other services | ---------- | 250,000 | 250,000 | ---------- |
| 26 Supplies and materials | ---------- | 194,095 | 175,000 | −19,095 |
| 31 Equipment | ---------- | 34,600 | 30,000 | −4,600 |
| 32 Lands and structures | ---------- | 1,086,012 | 1,059,000 | −27,012 |
| Total obligations | ---------- | 2,000,000 | 2,000,000 | ---------- |

PLANS FOR FISCAL YEAR 1965

Chairman HAYDEN. Please comment to the committee on your program for fiscal year 1964 and the plans of your Bureau for fiscal year 1965.

Mr. BEIRNE. Mr. Chairman, we had contractual authority for $2 million during the current fiscal year. The basic legislation provides contractual authority for $4 million for 1965; however, we are limited to $2 million, and since most of our construction is fairly small in nature, it does not extend over a period of years.

Now, we anticipate we will have to pay $2 million of that.

WORK IN SOUTH DAKOTA

Senator MUNDT. Mr. Chairman, I have a couple of questions.

It is my understanding, Mr. Stoddard, the budget now before us includes the total of about $146,000 for work in South Dakota. Of this, $14,000 is for lease and disposal of lands and mineral resources, $6,000 for management grazing lands, $43,000 for forestry 1964 surveys, and $18,000 for soil and moisture conservation which together with $12,000 for public land development of roads and trails makes up the expenditure package.

I wonder if you could briefly outline just what type of work will be done under each of these activities. For example, what land will be leased and what land is to be disposed in what manner, what type of forestry and water conservation will be done and where?

Now, if you would rather prepare a statement on that and send it to my office that will be all right.

Mr. STODDARD. I think we could do a more complete job for you, Senator Mundt, if we could lay it out with technical background and maps.

EXEMPTION LAND SURVEYS, SOUTH DAKOTA

Senator MUNDT. I want this primarily for my own information. And on page 43 of your justification you mentioned the exemption land surveys in South Dakota. Could you give us, for the record, a few words on that and the history and plans for the future. I am not too familiar with that operation.

Mr. STODDARD. I will ask our surveyor.

Mr. REMINGTON. I am not familiar with the detail on it.

Senator MUNDT. If you would rather supply that to the record that is all right.

Mr. REMINGTON. Yes, sir.

(The information referred to follows:)

BLACK HILLS

To achieve full resource utilization in the project area resurveys must be accomplished to delineate the lines between public and private lands. The public lands in the Black Hills exemption area consist of numerous irregular tracts, bounded by the lines of patented mineral claims. The tracts range in size from 0.02 to over 1,200 acres. This area was "exempted" from inclusion in the Black Hills National Forest because of heavy mining claim activity.

The badly deteriorating monumentation completed almost 80 years ago consists of materials such as native rocks, posts, pits, and mounds. These, coupled with the maze of claim stakes and monuments of every conceivable material, pose a real challenge during remonumentation.

REVISION OF LAND RECORD SYSTEM

Senator MUNDT. In your justification, on pages 18 and 19 you discuss the land record system which is being revised and brought up to date. According to page 18 of your justification, the system has been completed for South Dakota as well as for seven other States. Just exactly what is this program and what is the function of it? I am just not clear on that.

Mr. STODDARD. Mr. Senzel will talk on that.

Mr. SENZEL. Yes, sir; I will be glad to. Our land records that we have been using go back almost to the beginning of the public land laws. About 10 years or so ago we started a program to modernize those records. Many of them were being lost through deterioration. They were in the form of entries in a ledger and were very difficult to use, both for the public and for our own employees. They were a very inefficient way to try to operate the public domain.

METHOD OF CHECKING SURVEYS

The system now involves the checking of the basic records to correct any errors that appear in the books, and a great many of them have accumulated over the years, and putting the record in a more usable system, this is largely in the form of a summary record, typewritten, instead of handwritten, and in the form of plats so that you can visually see the status of the lands and their availability.

Senator MUNDT. Is this sort of a cataloging of all of the public lands that you have in each State? Is that what we are talking about?

Mr. SENZEL. The public domain. Actual cataloging of what has been patented and the status of what remains.

Senator MUNDT. Then you also indicate under whose jurisdiction they are being operated, whether under the Park Service or whether it is under the Department of Agriculture or whether under your Department? Do you show that, too?

Mr. SENZEL. Yes, sir; through the nature of the withdrawal that may be on the land. It is in terms of the withdrawal.

Senator MUNDT. Am I correct in that you have completed that reclassification or recodification for South Dakota?

### SOUTH DAKOTA RECORD

Mr. SENZEL. I understand for that portion of South Dakota which is still active as public domain, Senator. Much of the eastern part of the State has been patented for many, many years.

Senator MUNDT. Could you send to my office a complete record of what we have in this cataloging of yours in South Dakota?

Mr. SENZEL. Yes, sir.

Senator MUNDT. Thank you. That is all.

Senator MCGEE. Mr. Chairman.

Chairman HAYDEN. Yes, sir.

### REDUCTION OF ANIMAL GRAZING UNITS

Senator MCGEE. I wanted to pursue a point or two in regard to the grazing lands. Of course, that is where we are getting a lot of static right now, particularly with the proposals to reduce the animal units. I wonder if we could get some information on the record to help in getting at the problem.

How many acres of grazing land do you manage?

Mr. STODDARD. We have about 180 million acres. All but about 2 million are in the "lower 48" States.

Senator MCGEE. How many animal unit months of grazing does this provide?

Mr. STODDARD. About 17 million animal units or AUM's for domestic livestock and 2.2 million AUM's for wildlife use. This is, again, in the Western States, except for Alaska. In Alaska they also have reindeer AUM's.

### RANGE ADJUDICATION, TAYLOR ACT

Senator MCGEE. Can you explain briefly the purpose of the so-called range adjudication program under the Taylor Act?

Mr. STODDARD. When the act was passed in 1934 individual ranchers indicated that they had certain claims to certain amounts of forage. These all added up to more than the available supply and this whole effort is to determine the applicants' qualifications for forage and to distribute it among the ranchers in equitable proportions.

In many cases this has been a reduction. Where the management has not been as active as it should be, and the deterioration has been great, this means a greater cut than where there is a very healthy range condition.

### ANIMAL UNIT CUTS CREATE POVERTY AREAS

Senator MCGEE. In some of the areas, particularly out in our part of the world, the size of sum reductions, at least those proposed, have

been so substantial it occurs to me that we are creating our own original poverty areas. Some areas have been cut back very severely. Would that not be the result?

Mr. STODDARD. That is right.

Senator MCGEE. What do we gain by this?

Mr. STODDARD. The problem, of course, is if an economic unit of a rancher to make a decent living is 300 head of cattle is cut down to 200, his whole economic base is shot down from under him. In the long run, the range can come back and can support 350 or 400 head if range improved practices are followed.

Senator MCGEE. After he has gone broke.

Mr. STODDARD. This is the problem. This is why we are interested in doing as much as we can in range improvements in the areas where the bite takes place.

Senator MCGEE. You are saying then, that you think the ranges could be improved moderately and with less severe cuts over a long period of time, thus keeping the ranchers in business and achieving your goal of effective range conservation?

### FUNDS TO IMPROVE RANGE CONCURRENTLY WITH CUTS

Mr. STODDARD. If we had the funds to do range improvement concurrently with the cuts, we could show the ranchers that they would have to take up their belts for a short time, but in the long run they would be better off. We are trying to work out a package program whereby they would be able to get some assistance from the Department of Agriculture agencies, ACP, to build up their own lands to help carry them through this period of drought which is necessary, if we are going to get the range in a better longrun condition.

Senator MCGEE. Do you mean that in your judgment you lack the funds to go at it that way?

Mr. STODDARD. To be able to allocate it as the adjudications are taking place.

### AMOUNT FOR SOIL AND MOISTURE CONSERVATION

Senator MCGEE. How much are you getting now for your soil and moisture conservation?

Mr. STODDARD. About $12 million a year.

Senator MCGEE. How much per acre is that? Maybe you could supply it for the record.

Mr. STODDARD. It is about 7 cents, I think, spread over the whole grazing area. But in terms of the application to the specific units in which the work is going on, it is somewhere around, I think, $5 or $6 an acre. But it is limited.

### FUNDS ALLOWANCE PRECLUDES REHABILITATION PROBLEM

Senator MCGEE. What you said, then, in your response to the previous question is that this just enables you to hang on by the fingernails. It does not enable you to move ahead with the kind of rehabilitation program whereby simultaneously with the range improvement you take a more moderate position in regard to the reductions that had been proposed?

Mr. STODDARD. That is right. We have to rely on nature if we do not have a chance to go in and establish a stand of grass, by pulling off the pressure and waiting until the grasses come in as a result of lower grazing pressure.

### LONG-RANGE DANGER OF OVERGRAZING

Senator MCGEE. The other side of the coin, of course, is that if you do not make the cutbacks you deem necessary, you can put the range permanently out of business.

Mr. STODDARD. This is the long run danger.

Senator MCGEE. So we can go at this problem in one of two ways. As it stands now with the pending appropriation, we can allow reductions and permanently ruin the range by little or no management of it. Or we can handle it in the way that its severe condition requires, that is, provide additional funds to practice conservation in areas where cuts are proposed and keep the rancher in business. Is that what you are saying?

### GRADUAL PROCESS OF CHANGING UNIT RULE

Mr. STODDARD. Yes. We could make this a gradual process of shifting from present condition to a better future condition rather than a more or less drastic change.

Senator MCGEE. Could you elaborate on this a little bit, for the record? This concept is important and should be clearly understood.

Mr. STODDARD. Here is a ranching unit. Here is the base ranch and here is the public land along side of it. Say the condition is poor. Say it is low productivity. It takes 40 acres to take care of a head, or maybe it takes a section, but it is low productivity depending on the location.

### RESULTS OF REDUCING GRAZING PRESSURE

Now, by reducing the grazing pressure there will be an increase in the amount of forage available. But, shall we say, elimination of sagebrush in some areas will increase the forage considerably and reseeding will increase it even more.

So that we have the problem of a short-term pulling up of the belt, but we are going to have to have a new seeding and then a rest so that we can get into a rotation type of pasture management so that the new seeding can get established for a year of two before grazing takes place on it.

But we have not the money in most cases to do the work on the ground. We are trying to make a tie-in, but it is just not enough.

Senator MCGEE. You could not undertake this type of program on a 1-year, quick-shot basis?

Mr. STODDARD. Not 1 year. Over several years. We would stage our adjudications to fit the investment funds that are available.

### REDUCTIONS IN AREAS OF EXCESSIVE GRAZING DEMANDS

Senator MCGEE. I still have questions about this. But to be practical, it would be helpful if you could prepare for the committee a list of the areas where grazing demand exceeds the present capacity and the extent of the reductions that the BLM recommends or is

projecting for those areas. Then show the present animal units on those tracts, the grazing demands on them, the potentials of all sorts and types of improvements, that, in your judgment, would be required to do both of these things, to develop those ranges over the long pull and at the same time protect the ranchers who are already using them, at least at a level at which they could stay in business.

I think if you could put this information in table form for those areas it would give us, at a glance, a very useful profile of the concepts of the program and what it would cost.

Mr. STODDARD. We will be able to supply all of the first and much of the second, but it will have to be estimates. We have the data on where they are scheduled to take place and how much is involved.

Senator MCGEE. This information should also include the number of ranches involved in each of those areas.

Mr. STODDARD. These we will be able to give you.

### RELATION OF NUMBER OF ANIMAL UNITS TO SURPLUS

Senator MCGEE. This discussion raises another question about increasing the animal units or holding them level at the same time we are talking about our concern over beef imports. This is a question raised with me by the ranchers in Wyoming who want to stay in business with as many units as they can.

As we project an increase in the per capita consumption of beef, which is growing at a rather steady pace—3.7 percent—we are going to have an increased demand for animal units, rather than less, and this is the reason why you ought to be thinking seriously about increasing those units rather than cutting them back as severely as you have. That is why I would be interested in seeing this spelled out on the figures you will supply.

It sounds good if it can be supported by the evidence that your technicians can supply for us.

Mr. STODDARD. We will be glad to supply that information for you.

(The information referred to follows:)

### ANALYSIS OF NEEDED ADJUSTMENTS IN GRAZING USE ON BLM LANDS

The attached tabulation indicates the funds which would be required to restore grazing use, in the areas listed, to either the qualified demand or treatment potential, whichever is less.

The tabulation includes only those areas which are under immediate consideration for adjustments in grazing use and does not include the areas in which adjustments have previously been imposed. Approximately 80 percent of the operators who have grazing use on lands administered by BLM have previously been adjusted to the grazing capacity of the range and are not included in this report. In general, the areas previously adjusted have incurred larger reductions in grazing use than those remaining because the more critical areas were given priority.

In many instances the forage potential for the area is greater than that required to satisfy the qualified demand for grazing use in the area. It may be possible in some instances to shift operations from areas with limited potential to areas where extensive land treatment practices can be applied.

Normally, soil stabilization, water control, and proper water use results in increased forage production and it is through the integration of the Bureau's soil and moisture conservation program with the grazing administration phase that these forage increases can be planned and used to advantage. Thus, many soil and moisture conservation projects will serve both their intended purpose of controlling erosion while also increasing the forage resource.

Following is an explanation of the various column headings appearing on the attached tabulation:

*Number of operators.*—The number of individuals who will be affected by the anticipated adjustment in grazing use on the areas involved.

*Acres Federal range.*—Acreage of lands administered by the Bureau of Land Management within the specified area.

*Estimated grazing capacity (animal unit months).*—The number of animal unit months of forage that are presently available for livestock within the specified area on lands administered by the Bureau of Land Management.

*Qualified demand (animal unit months).*—The maximum animal unit months of forage that the operators within the area are qualified to utilize from the lands administered by the Bureau of Land Management.

*Adjustment (reduced animal unit months).*—This is the difference between the present grazing capacity of the Federal range and the qualified demand of the operators within the area.

*Potential for increase by treatment (animal unit months).*—The estimated animal unit months of forage that can be obtained through rehabilitation of the range; i.e., range seeding, brush spraying, water spreading, contouring, etc. This figure is in addition to the present grazing capacity.

*Additional increase by management following treatment (animal unit months).*—The estimated animal unit months of forage that can be obtained by intensive management practices. This does not include any land treatment work, but would include water developments, fencing, etc. This figure is also in addition to the present grazing capacity and would not be fully available for a considerable period of time.

*Estimated cost of treatment.*—The estimated funds required to restore, through range treatment, the animal unit months of forage indicated by either the adjustment (reduced animal unit months) column or the potential for increase by treatment (animal unit months) column, whichever is the least.

*Rehabilitation measures required.*—This is a list of the major improvement practices applicable in the area and for which the funds would be expended.

29-120—64——9

| State and district | Unit | Number of operators | Acres Federal range | Estimated grazing capacity (animal unit months) | Qualified demand (animal unit months) | Adjustment reduced (animal unit months) | Potential for increase by treatment (animal unit months) | Additional increase by management following treatment (animal unit months) | Estimated costs of treatment to restore reduction | Rehabilitation measures required |
|---|---|---|---|---|---|---|---|---|---|---|
| Colorado: Grand Junction | Roan Creek | 37 | 234,304 | 10,000 | 19,505 | 9,505 | 5,000 | 4,000 | $150,000 | Brush spraying, seeding, fencing, water developments. |
| Idaho: | | | | | | | | | | |
| Salmon | Baker | 8 | 7,200 | 2,000 | 2,717 | 717 | 400 | None | 12,000 | Seeding, fencing, water developments. |
| Shoshone | Hailey | 44 | 95,603 | 16,113 | 20,363 | 4,250 | 8,056 | 2,417 | 127,500 | Brush spraying, seeding, fencing, water developments. |
| Nevada: | | | | | | | | | | |
| Ely | Duckwater | 22 | 841,611 | 18,000 | 35,693 | 17,693 | 500 | 700 | 15,000 | Fencing and water development. |
| Do | Steptoe | 20 | 413,821 | 18,000 | 35,939 | 17,939 | 2,500 | 2,500 | 75,000 | Seeding, fencing, and water development. |
| Elko | Buckhorn | 15 | 355,805 | 25,842 | 34,987 | 9,145 | 10,000 | None | 274,500 | Do. |
| Las Vegas | Panaca | 44 | 460,732 | 11,500 | 53,535 | 42,035 | 1,000 | 8,000 | 30,000 | Brush spraying, fencing, water development. |
| Oregon: | | | | | | | | | | |
| Lakeview | North Warner | 19 | 684,800 | 26,622 | 33,558 | 6,936 | 23,378 | 13,378 | 208,000 | Brush spraying, seeding, fencing, water development. |
| Do | Cox Butte | 1 | 36,500 | 417 | 1,316 | 899 | 1,000 | 233 | 30,000 | Do. |
| Utah: | | | | | | | | | | |
| Murray | Fish Sp.-Ibapah Mt. | 5 | 13,700 | 310 | 656 | 346 | 340 | 270 | 10,000 | Brush spraying, fencing, water development. |
| Fillmore | Warm Springs | 83 | 332,441 | 6,625 | 43,729 | 37,104 | 2,318 | 5,962 | 69,500 | Brush spraying, seeding, fencing, wate development. |
| Do | Beaver Unit | 12 | 47,680 | 2,000 | 3,214 | 1,214 | 2,100 | 720 | 36,500 | Do. |
| Cedar City | New Harmony | 11 | 20,599 | 1,716 | 3,909 | 2,193 | 300 | 400 | 9,000 | Seeding, fencing, water development. |
| Richfield | West Henry Mountains. | 39 | 642,411 | 16,500 | 55,274 | 38,774 | 1,000 | 3,700 | 30,000 | Chaining, seeding, fencing, water development. |
| Monticello (U-6) | Cahone | 8 | 143,460 | 8,803 | 15,805 | 7,002 | 6,150 | 1,820 | 184,500 | Brush removal, seeding, fencing, water development. |
| Do | Blanding | 10 | 187,850 | 9,717 | 17,382 | 7,665 | 4,320 | 1,843 | 129,500 | Do. |
| Do | Hatch Point | 15 | 151,240 | 4,282 | 33,143 | 28,861 | 600 | 3,571 | 18,000 | Do. |
| Monticello (U-9) | State line | 10 | 189,380 | 15,126 | 31,351 | 16,225 | 450 | 2,268 | 13,500 | Do. |
| Price | Muddy Creek | 44 | 179,704 | 8,985 | 12,712 | 3,727 | 5,015 | 4,015 | 112,000 | Contouring, furrowing, fencing, water development. |
| Do | Coal Creek | 31 | 168,604 | 12,027 | 25,252 | 13,225 | 12,973 | 4,973 | 389,000 | Chaining, seeding, fencing, water development. |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Wyoming: | | | | | | | | | | |
| Pinedale | South LaBarge | 10 | 107,365 | 8,390 | 14,343 | 5,953 | 1,441 | 2,800 | 43,000 | Brush spraying, seeding, fencing, water development. |
| Do | North LaBarge | 13 | 159,977 | 11,202 | 28,671 | 17,469 | 1,992 | 5,500 | 60,000 | Do. |
| Do | Bench Corral | 16 | 147,172 | 12,264 | 32,240 | 19,976 | 3,000 | 7,400 | 90,000 | Do. |
| Do | Deer Hills | 4 | 26,240 | 2,182 | 4,061 | 1,879 | 500 | 800 | 15,000 | Do. |
| Rock Springs | Burntfork | 58 | 358,746 | 28,350 | 48,289 | 19,939 | 11,650 | 6,650 | 349,500 | Seeding, fencing, water development. |
| Total | | 579 | 6,006,945 | 276,973 | 607,644 | 330,671 | 105,983 | 83,920 | 2,481,000 | |

PUBLIC HEARINGS IN THE WEST

Senator MCGEE. I think we should take this kind of proposal out to Wyoming in field hearings of the Public Lands Subcommittee and ask some questions out there, inasmuch as we do want some public hearings in the West. It would be useful if we had your information when we go to Wyoming for hearings.

COST OF RANGE REHABILITATION

Senator BIBLE. One problem that worries me, and I appreciate your suggestions and as I have indicated we will have field hearings in both Wyoming and Utah, is the terrific price tag of rehabilitating the ranges to the point where you think they can carry a full load.

I think your predecessor testified on that question, either last year or the year before, and we were getting into a figure of hundreds of millions of dollars to rehabilitate the range where it could carry the full allotment, and this gives me great concern because I do not know if it is good economics. And I am interested in the line of questioning developed by the Senator from Wyoming. It is very appropriate, it is helpful in attempting to work out one of the real touchy areas that you wrestle with in the Bureau of Land Management; but if I recall in one of our field hearings I think it was said that there has not been a single rehabilitation program under the direction of the Bureau of Land Management that has resulted in the restoration of a single grazing cut.

Now, I wish you would either verify that, correct it, or put the record straight, because if we are spending these millions and millions of dollars on rehabilitation programs and it does not restore any of the carrying capacity or any of the allotment cut, then I wonder why we should have it.

But I wish you would supply that information.

Mr. STODDARD. We will be glad to do so, and I think it is on the contradictory side.

Senator BIBLE. It may be and I want you to analyze it and if I am wrong or if my information is wrong indicate where it is wrong and where you have spent $10 or $20 million and it has resulted in an increase in the allotted carrying capacity, because this is a real tough program.

(The information referred to follows:)

RESTORATIONS IN GRAZING USE RESULTING FROM REHABILITATION MEASURES

The attached tabulation contains examples of the restorations effected through rehabilitation measures.

The instances where restorations have been made after an adjustment was imposed, though significant, are not as numerous as instances where larger adjustments would have been required had the rehabilitation measures not been in effect prior to the adjudication. Some examples are evident in the tabulation.

The Burley district in Idaho provides an outstanding example of where tremendous potentials exist in rehabilitation practices. Special funds provided to control the beet leafhopper through the eradication of host plants by planting perennial grass species, resulted in secondary benefits of increased forage available for livestock and wildlife.

Listed are some examples of the increased grazing use made available by range rehabilitation practices on BLM land.

*Restorations resulting from rehabilitation measures*

| State | District | Unit | Original adjustment | | Restorations (percent of original adjustment) |
|---|---|---|---|---|---|
| | | | Percent | Year | |
| Colorado | Denver | Middle Park | 44 | 1953 | 338 |
| | | North Park | 46 | 1952 | 67 |
| | | do | 67 | 1956 | 25 |
| | Montrose | Cochetopa | 43 | 1959 | 87 |
| | | Blue Cimarron | 51 | 1954 | 39 |
| | | Iola | 50 | 1955 | 519 |
| | | Montrose allotment | | 1961 | 100 |
| | Durango | Paradox | 56 | 1958 | 18 |
| | | Norwood | None | | [1] 875 |
| | Grand Junction | Glade Park | None | | [1] 400 |
| Idaho | Boise | Cedar Butte | 55 | 1956 | 21 |
| | | Black Canyon | 6 | 1954 | 72 |
| | | Trout Creek | 52 | 1958 | 34 |
| | Burley | Junction | 43 | 1957 | 28 |
| | Idaho Falls | Elbow | 66 | 1957 | 55 |
| | | Arco Pass | 65 | 1950 | 18 |
| | | South Antelope | 35 | 1958 | 13 |
| | | North Antelope | 25 | 1957 | 65 |
| | | Hawley Mountain | 30 | 1956 | 74 |
| | | Little Grassy | 42 | 1962 | 6 |
| | | Table Butte | 64 | 1961 | 7 |
| | | Medicine Lodge | 15 | 1962 | 100 |
| | Salmon | Baldy Mountain | 45 | 1953 | 65 |
| | | Hoynes Creek | 45 | 1953 | 33 |
| | | McDevit | 45 | 1953 | 35 |
| | | Chilly Flat | 22 | 1958 | 110 |
| | Shoshone | Dietrich Butte | 54 | 1961 | 20 |
| | | Lake Channel | 88 | 1957 | 55 |
| | | Gooding | 70 | 1956 | 28 |
| | | Shoshone | 55 | 1956 | 15 |
| | | Walcott | 46 | 1956 | 14 |
| | | Shodde | 25 | 1956 | 17 |
| | | Laidlow Park | 49 | 1956 | 5 |
| | | West Bliss | 48 | 1956 | 25 |
| Montana | Dillon | Horse Prairie | 25 | 1940 | 306 |
| Nevada [2] | Elko | Metropolis | 0 | 1962 | [1] 14 |
| | | Jiggs No. 1 | 0 | 1963 | [1] 34 |
| | | Jiggs No. 2 | 34 | 1963 | 31 |
| | | Jiggs No. 3 | 34 | 1963 | 25 |
| | | Jiggs No. 4 | 51 | 1963 | 25 |
| | | Jiggs No. 5 | 34 | 1963 | 24 |
| | | Jiggs No. 6 | 42 | 1963 | 17 |
| | | Clover | None | 1963 | [1] 593 |
| | | Lamville No. 1 | 42 | 1962 | 12 |
| | | Lamville No. 2 | 0 | 1962 | [1] 46 |
| | | Lamville No. 3 | 57 | 1962 | 82 |
| | | Lamville No. 4 | 36 | 1962 | 36 |
| | Winnemucca | Kings River No. 1 | 24 | 1960 | 10 |
| | | Kings River No. 2 | 0 | 1960 | [1] 113 |
| | | Paradise No. 1 | 41 | 1962 | 25 |
| | | Paradise No. 5 | 45 | 1962 | 25 |
| | Carson City | Desert Creek | 66 | 1953 | 38 |
| | Ely | Strawberry | 40 | 1944 | 12 |
| | | Antelope | 10 | 1945 | 2 |
| | | Jokes | 0 | 1945 | [1] 4 |
| | | South Steptoe | 13 | 1959 | 12 |
| | | Shoshone | 20 | 1945 | 3 |
| | | Horse and cattle | 0 | 1945 | [1] 35 |
| | Battle Mountain | Austin | 50 | 1959 | 25 |
| | | Roberts Creek | 50 | 1963 | 20 |
| | | Carico Lake | 15 | 1964 | 10 |
| | | New Pass | 33 | 1961 | 5 |
| New Mexico | Albuquerque | Allotment | 38 | 1941 | 22 |
| | Socorro | do | 44 | 1936 | 28 |
| | Las Cruces | Allotment No. 1 | 44 | 1951 | 36 |
| | | Allotment No. 2 | 29 | 1958 | 100 |
| | | Allotment No. 3 | 9 | 1956 | 64 |
| | | Allotment No. 4 | 61 | 1936 | 69 |
| | Farmington | Allotment | 60 | 1941 | 66 |
| Oregon | Vale | Soldier Creek | 20 | 1956 | 13 |
| | | Cow Creek | 20 | 1954 | 49 |
| Utah | Murray | Government Creek | 45 | 1959 | 7 |

See footnotes at end of table, p. 132.

*Restorations resulting from rehabilitation measures*—Continued

| State | District | Unit | Original adjustment | | Restorations (percent of original adjustment) |
|---|---|---|---|---|---|
| | | | Percent | Year | |
| Wyoming | Worland | Forks allotment | 35 | 1955 | 102 |
| | | do | 35 | 1955 | 90 |
| | | Burlington-Dry Creek | 70 | 1959 | 38 |
| | Rawlins | Boggs | 49 | 1947 | 25 |
| | Pinedale | Piney | None | | [1] 46 |
| | | Fear Ranch | 49 | 1953 | 89 |
| | | Beecher | 49 | 1953 | 146 |
| | | Guio | 49 | 1953 | 72 |
| | | J. Mickelson | 49 | 1953 | 58 |
| | | G. Mickelson | None | | [1] 11 |
| | | Rothburn | None | | [1] 40 |
| | | Broy | 49 | 1953 | 58 |
| | | Norris | None | | [1] 75 |
| | | Smith | None | | [1] 50 |
| | | McNich No. 1 | None | | [1] 18 |
| | | McNich No. 2 | None | | [1] 25 |
| | | Green River | 48 | 1959 | 100 |

[1] These units did not have a downward adjustment in grazing use and the precent figure shown in the restoration column indicates the percentage of the qualified demand by which the operations were increased. The rehabilitation measures averted a reduction and resulted in the availability of forage in excess of the original demand.

[2] The Nevada tabulations include both restoration of use following a reduction and the reduction averted due to the rehabilitation of areas prior to adjudication. All adjustments listed during 1962 and 1963 show the present adjustment averted in the restoration column.

Senator McGEE. That is all the questions I have. Thank you.

Chairman HAYDEN. Any further questions?

PERSONNEL STRENGTH OF BUREAU

Senator BIBLE. Before we adjourn I have one more question to ask. What is your present personnel strength in the Bureau of Land Management? How many employees do you have?

Mr. STODDARD. I know we have 1,705 temporary in the summer season and it is something over 3,000 permanent.

Mr. BEIRNE. We have a proposal for 3,461 permanent employees.

Senator BIBLE. Is that what you are carrying now?

Mr. BEIRNE. Possibly there are 200 vacancies out of that.

Senator BIBLE. How many are in Washington and how many are in the field?

Mr. BEIRNE. In Washington there are a little over 300.

Senator BIBLE. The balance are in the field?

Mr. BEIRNE. Yes, sir.

Senator BIBLE. How many States are actually under your jurisdiction? Do I understand the figure is 12?

STATE OFFICES OF BUREAU

Mr. STODDARD. Where we have State offices and in addition we have other States, mostly in the Great Plains area, where we do have more scattered lands. We have some in Minnesota, some in Michigan, some in Florida. But basically they are in the 12 Western States.

Senator BIBLE. Your State directors and main offices are in 12 of the Western States, but you actually have a Bureau of Land Management office in how many other additional States?

Mr. BEIRNE. Two other States. We have an office in Washington which handles most of the fieldwork east of the Rockies, and we have an office in New Orleans which handles the Outer Continental Shelf.

Senator BIBLE. You are talking about 14 BLM offices in the United States?

Mr. STODDARD. Central offices. Then there are district offices.

Senator BIBLE. How many of those?

Mr. STODDARD. Seventy-one.

Senator BIBLE. Located in how many different States?

Mr. BEIRNE. We have 71 district offices in the Western States, and 2 in Alaska.

Senator BIBLE. I have just one further question.

Senator MCGEE. May I add that of the 3,000 that must be out in the field, I have a letter from one unhappy rancher who thinks they are all in one county in Wyoming.

### TEMPORARY SUMMER JOBS

Senator MUNDT. How many temporary summer jobs?

Mr. BEIRNE. There are about 1,700.

Senator MUNDT. What kind of jobs are those? What kind of people do you employ? Where do you get them?

Mr. BEIRNE. They are survey aids, some work with range crews in the soil and moisture field and in the forestry field.

Senator MUNDT. Would these be in the main, college boys?

Mr. BEIRNE. Generally, yes.

Senator MUNDT. How do they get jobs there? How do they qualify? How do you pick them?

Mr. BEIRNE. They just apply, generally. For these short-term appointments, there is no general examination.

Senator MUNDT. They just list their qualifications?

Mr. STODDARD. And we are interested in them, if they are studying agriculture or forestry.

Senator MUNDT. What do you pay?

Mr. BEIRNE. About the equivalent of a GS–3.

Senator MUNDT. Is that around $350 a month?

Mr. BEIRNE. A little less than that, I think. About $300.

Senator MCGEE. Would you be receptive to Senators recruiting for that program?

### BACKLOG OF WORK IN NEVADA

Senator BIBLE. Mr. Chairman, may I ask just one further additional question of Mr. Senzel. I understood him to say his workload is about current and I would like a reading on Nevada, because the director there is in the process of requesting a moratorium on the grounds that he cannot get up on his caseload.

Mr. SENZEL. I believe I said it was generally current but that we have a backlog in some States. You are quite right. One of our bad areas is in the desertland law area in Nevada. So far as management of our funds and making lands available to people economically, we have problems there.

Senator BIBLE. I have mixed emotions about the Nevada problem. The moratorium may very well be a good thing not only for the purpose of catching up with the backlog but for the purpose of having

land and water run together with some degree of continuity and semblance of reason. I wanted that clear.

Mr. SENZEL. Yes, sir.

Chairman HAYDEN. We will stand recessed until 10 a.m., Friday, February 21, and take up the Bureau of Indian Affairs at that time.

Thank you, gentlemen.

(Whereupon, the committee adjourned at 11:50, Thursday, February 20, 1964, to reconvene at 10 a.m., Friday, February 21, 1964.)

# DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1965

FRIDAY, FEBRUARY 21, 1964

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, D.C.*

The subcommittee met at 10 a.m., pursuant to recess, in room 1223 of the New Senate Office Building, Hon. Carl Hayden (chairman presiding.)

Present: Chairman Hayden, Senators Bible, McGee, and Bartlett.

## DEPARTMENT OF THE INTERIOR

### BUREAU OF INDIAN AFFAIRS

**STATEMENT OF PHILLEO NASH, COMMISSIONER OF INDIAN AFFAIRS, ACCOMPANIED BY JOHN O. CROW, DEPUTY COMMISSIONER; JAMES E. OFFICER, ASSOCIATE COMMISSIONER; RODERICK H. RILEY, ASSISTANT TO THE COMMISSIONER; FRED H. MASSEY, ASSISTANT COMMISSIONER, ADMINISTRATION; MISS SELENE GIFFORD, ASSISTANT COMMISSIONER, COMMUNITY SERVICES; R. REESEMAN FRYER, ASSISTANT COMMISSIONER, ECONOMIC DEVELOPMENT; A. O. ALLEN, ENGINEERING ADVISER; MRS. HILDEGARD THOMPSON, CHIEF, BRANCH OF EDUCATION; J. LEONARD NORWOOD, CHIEF, BRANCH OF BUDGET AND FINANCE; FRANCIS WILES, CHIEF, BUDGET SECTION, BRANCH OF BUDGET AND FINANCE; WALTER J. KNODEL, CHIEF, BRANCH EMPLOYMENT ASSISTANCE; AND GEORGE KEPHART, CHIEF, BRANCH OF FORESTRY**

#### COMPARATIVE STATEMENT

Chairman HAYDEN. The subcommittee will be in order.

There will be placed in the record a comparative statement of fiscal year 1964 appropriations and the budget estimate for fiscal year 1965 for the Bureau of Indian Affairs. This statement shows an increase of $3,669,450 over the appropriation for fiscal year 1964.

(The statement referred to follows:)

*Comparative statement of 1964 appropriations and 1965 budget estimate*

| | 1964 | | | 1965 estimate | Increase or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|---|
| | Appropriation | Transfers [1] (−) | Amount available | | Total | Pay cost [2] | Programs |
| Education and welfare services: | | | | | | | |
| 1. Educational assistance, facilities, and services | $66,118,250 | $9,200 | $66,109,050 | $70,652,000 | $4,542,950 | $631,750 | $3,911,200 |
| 2. Welfare and guidance services | 11,264,000 | 6,600 | 11,257,400 | 11,646,000 | 388,600 | 52,000 | 336,600 |
| 3. Relocation and adult vocational training | 9,420,000 | 1,000 | 9,419,000 | 12,092,000 | 2,673,000 | 69,000 | 2,604,000 |
| 4. Maintaining law and order | 2,433,000 | | 2,433,000 | 2,580,000 | 147,000 | 27,000 | 120,000 |
| Total | 89,235,250 | 16,800 | 89,218,450 | 96,970,000 | 7,751,550 | 779,750 | 6,971,800 |
| Resources management: | | | | | | | |
| 1. Forestry and rangelands | 4,804,100 | 1,000 | 4,803,100 | 4,924,200 | 121,100 | 70,100 | 51,000 |
| 2. Fire suppression | 140,000 | | 140,000 | 140,000 | | | |
| 3. Agricultural and industrial assistance | 5,499,400 | 9,000 | 5,490,400 | 6,313,500 | 823,100 | 84,100 | 739,000 |
| 4. Soil and moisture conservation | 5,917,600 | | 5,917,600 | 5,408,000 | −509,600 | 90,400 | −600,000 |
| 5. Maintenance of roads | 3,134,800 | | 3,134,800 | 3,595,600 | 460,800 | 10,800 | 450,000 |
| 6. Development of Indian arts and crafts | 312,700 | | 312,700 | 318,000 | 5,300 | 5,300 | |
| 7. Management of Indian trust property | 5,921,600 | 8,000 | 5,913,600 | 6,468,000 | 554,400 | 99,400 | 455,000 |
| 8. Repair and maintenance of buildings and utilities | 10,642,700 | | 10,642,700 | 12,246,700 | 1,604,000 | 54,000 | 1,550,000 |
| 9. Operation, repair, and maintenance of Indian irrigation systems | 1,318,400 | | 1,318,400 | 1,314,000 | −4,400 | 4,600 | −9,000 |
| Total | 37,691,300 | 18,000 | 37,673,300 | 40,728,000 | 3,054,700 | 418,700 | 2,636,000 |
| Construction: | | | | | | | |
| 1. Buildings and utilities | 52,800,000 | 62,000 | 52,738,000 | 42,776,000 | −9,962,000 | | −9,962,000 |
| 2. Irrigation systems | 5,500,000 | | 5,500,000 | 8,400,000 | 2,900,000 | | 2,900,000 |
| Total | 58,300,000 | 62,000 | 58,238,000 | 51,176,000 | −7,062,000 | | −7,062,000 |
| Road construction (liquidation of contract authorization): 1. Federal-aid highway roads | 15,000,000 | | 15,000,000 | 17,000,000 | 2,000,000 | | 2,000,000 |
| General administrative expenses: | | | | | | | |
| 1. Departmental office | 1,233,000 | | 1,233,000 | 1,258,000 | 25,000 | 25,000 | |
| 2. Field offices | 3,032,000 | | 3,032,000 | 3,073,000 | 41,000 | 41,000 | |
| Total | 4,265,000 | | 4,265,000 | 4,331,000 | 66,000 | 66,000 | |
| Revolving fund for loans | 2,000,000 | | 2,000,000 | | −2,000,000 | | −2,000,000 |
| Menominee educational grants | 132,000 | | 132,000 | 88,000 | −44,000 | | −44,000 |
| Grand total | 206,623,550 | 96,800 | 206,526,750 | 210,293,000 | 3,766,250 | 1,264,450 | 2,501,800 |

[1] Represents transfers to General Services Administration unless otherwise footnoted.

[2] To provide for increased pay costs for fiscal year 1964 positions.

PREPARED STATEMENT

Chairman HAYDEN. Mr. Commissioner, if you have a statement for the record you may file it and summarize it, or if you prefer you may read it.

Mr. NASH. Thank you, Mr. Chairman. I have a statement which I would like to file for the record and summarize briefly, if I may, sir.

(The statement referred to follows:)

STATEMENT OF PHILLEO NASH, COMMISSIONER OF INDIAN AFFAIRS

Mr. Chairman and members of the committee, I appreciate the opportunity to appear before this committee to present the request of the Bureau of Indian Affairs for appropriations for fiscal year 1965.

The fiscal year 1965 budget estimate for the Bureau of Indian Affairs is $210,293,000, an increase of $3,766,250 over the adjusted appropriation for fiscal year 1964. This increase represents $1,264,450 for increased pay costs and $2,501,800 for program increases. These estimates adhere to the President's hold-the-line budget policy. We have included only built-in increases for the operation of previously approved school construction and for resource-based programs that will aid in the reduction of Indian poverty by increasing Indian employment and income.

The Bureau's staff will increase only because of our operation of schools and the adult vocational and training programs. These increases represent personnel to staff new facilities and for increased activity in the adult vocational training program. In keeping with the instructions of this committee and with our own desire to achieve the most effective utilization of personnel, we have made some adjustments in our personnel assignments within the overall ceilings to provide additional staff assistance in certain of the economic development programs. This has been accomplished through reductions of personnel in programs where the needs are less acute.

For education and welfare services we are asking the sum of $96,970,000. This is a program increase of $6,971,800 over fiscal year 1964. It includes funds for additional schoolchildren who are entering the Bureau's school system for the first time, and for increased aids to public schools educating Indian children under the Johnson-O'Malley program; for the vocational training of increased numbers of adult Indians authorized by recent amendments to Public Law 84–959, and for care of neglected, handicapped, or dependent Indian children.

The Bureau is requesting $40,728,000 for resources management, a program increase of $2,636,000 over 1964. Increases under this appropriation item are for the benefit of reservation areas through increased timber sales; improved real property and appraisal services; expansion of the reindeer industry in Alaska; improved credit services to Indians and Indian tribes; and further industrial development. Bureau responsibilities arising from claims awarded to Indian tribes by the Indian Claims Commission and the U.S. Court of Claims are increasing and funds to handle these added responsibilities are included in this request. Increased funds are also requested for assistance to tribal housing authorities in the construction of Indian dwellings, and for improved road maintenance, particularly schoolbus routes.

We request $4,331,000 for general administrative expenses, unchanged from the fiscal year 1964 level.

Our estimate for construction is $51,176,000. This is $7,062,000 less than the amount available for fiscal year 1964. The 1965 construction item will provide additional school facilities for Indian children entering the school system and the replacement of some of the most hazardous, unsafe, and substandard buildings in the present Bureau system.

The estimate for road construction is $17 million, an increase of $2 million in cash over the funds available in 1964 to liquidate the obligations incurred under the authority contained in the Federal Aid Highway Act.

You have justifications for each program request before you. I shall be happy to discuss these programs in detail with you and to answer any questions you may have.

### Statement of the Commissioner

Mr. Nash. For the record, my name is Philleo Nash. I am Commissioner of Indian Affairs and I have with me a number of my associates in the Bureau of Indian Affairs this morning.

Mr. Chairman, the 1965 budget estimate for the Bureau of Indian Affairs is $210,293,000, a net increase of $3,766,250 over the adjusted appropriation for fiscal year 1964. This increase represents $1,264,450 for increased pay costs and about $2.5 million for program increases.

Mr. Chairman, this budget is a hold-the-line budget in accordance with the desires of this committee and at the instruction of the President. The increases that we have asked are merely built-in increases that are necessary because of school construction programs that the Congress has funded in past years and which are coming into use this year and where we have to have, of course, teachers and maintenance and operating personnel as the buildings come into service.

### Adult Vocational Training Program

We are also asking for an increase, pursuant to the authorization of Congress to add to our adult vocational training program, a program which has been very successful and popular with the Indian people and which has a high rate of success in leading to employment for Indians following vocational training.

We think this is a real antipoverty program, one of proven effectiveness, which is not only helping Indian people, but will, perhaps, serve as a model for other groups.

Chairman Hayden. You mean acquired skills in order to be able to make a living?

Mr. Nash. Yes, and a good living, the kind of job skills that are marketable in today's labor market.

### Resources Program Increases

On the resources side, we are asking for some program increases, but only where the expenditure of a small amount of money will bring in a good many times that in Indian income. For example, by putting on a few additional foresters, it will be possible to increase timber sales of both tribal and allotted timber that will bring in receipts several times what it costs to put on those few additional people.

We have also, following instructions of the Congress, looked over our activities very carefully in order to see whether we can transfer people from programs of a lower priority to programs of a higher priority so as to do a more effective job within the dollar and personnel limitations that we are under.

### General Administrative Expenses

In the field of general administrative expenses, we are holding the same level as we have for several years. We are not asking for an increase and I would like to say that my associates have been very faithful and diligent in taking on additional programs, such as the accelerated public works program, without adding to the numbers of employees. This has been very difficult and there was a lot of overtime. I am not sure, in every case, that this is the most effective

way to get things done over a long period of time, but on a crash basis, we have been able to handle added amounts of work without adding employees.

### Housing on Reservations

This year, for the first time, we will begin to see some effective results in our program to bring the benefits of public housing to the Indian reservations. The Public Housing Administration has set aside 3,200 units, 1,700 of low-rent public housing, and 1,500 of a new program that was developed on the reservations, mutual help housing, and we are asking for people to supervise the construction of these dwellings.

Chairman Hayden. Are these all individual dwellings?

Mr. Nash. They are all individual dwellings. This is not group housing, sir. The program is very popular with the Indian people, and the first 10 units of the mutual help housing are actually under construction at the San Carlos Reservation right now, sir.

We are asking for construction, $51,176,000. This is $7,062,000 less than the amount available for fiscal year 1964. This will permit us to continue our program of school construction for Indian children primarily in the Four Corners area and Alaska and enable us to keep up with the rapid increase in the size of the school-age population. These funds will also enable us to continue our program of replacing the most hazardous, the most unsafe, and the most substandard buildings in the present Bureau system.

We are still operating with a substantially obsolete educational plant.

### Indian Population

Chairman Hayden. You mentioned a substantial increase in school population. How about the total population of all Indians? Are health conditions such that their number is actually increasing?

Mr. Nash. Yes, sir. The Indian population is the fastest increasing segment of the American population. And this is reflected, of course, in the demands for school services. The success of the Division of Indian Health in reducing some of the great killers, so far as Indian people are concerned, is having very significant results.

Now, the health conditions are still substandard, and an Indian baby born today has about nine-tenths the life expectancy of the non-Indian baby born next door. This is lower than it ought to be, but it is a great improvement over the years.

The health of the older people, going back to childhood diseases which were not under control in their youth, results in an average age at death of about two-thirds that of the general population.

Now, there is a difference between that average age of death and life expectancy that is a measure of the improvement in Indian health. I can brag about this, sir, because this is not our work, but the work of the Indian Health Division of the Public Health Service.

### Roads Construction

For road construction, Mr. Chairman, we are asking, in liquidating cash, $17 million. This will enable us to get caught up with the rate at which we are picking up obligations in roads construction.

In roads construction, we are emphasizing school bus routes, because as we open new schools it is important that the road nets be improved as much as possible in order to increase the attendance.

That completes my summary and if there are any questions I will be happy to answer them.

Chairman HAYDEN. There will also be included in the record the justifications for the 1965 estimate for education and welfare. This estimate amounts to $96,970,000, an increase of $7,734,750 over the appropriation for fiscal year 1964.

(The justifications referred to follow:)

## EDUCATION AND WELFARE SERVICES

### HIGHLIGHT STATEMENT

The Bureau provides services and assists the States in furnishing services to Indians in the United States including the natives of Alaska in the fields of education, welfare, relocation, and law and order. Progress in education is basic to successful achievement of overall Bureau programs.

Education provides the base of understanding and skills that facilitates Indian acceptance of ideas and programs leading them to full assumption of citizenship responsibilities. In the last few years the education program has been broadened to include adults as well as children of school age. Indian children attend public, Federal, private, and mission schools. In 1963 there were 121,236 Indian pupils, age 6 to 18 inclusive, enrolled in school, an increase of 3 percent over the year before. In addition, 10,563 Indian pupils, under 6 and over 81, were enrolled in school. Funds are requested for fiscal year 1965 to provide educational services for 2,253 additional pupils in boarding schools, approximately 240 additional pupils in 8 additional day school units, and for the Federal Government's share of the increased costs and increased pupil load in public schools enrolling Indian children.

### ENROLLMENT IN PUBLIC SCHOOLS

Wherever facilities are available to meet their needs Indians are enrolled in local public schools. The Bureau assists in financing some districts enrolling Indian pupils eligible for payment under the Johnson-O'Malley Act. When school districts educating Indian children are eligible for Federal aid under Public Law 874, 81st Congress (64 Stat. 1100), as amended, supplemental aid under the Johnson-O'Malley program is limited to meeting educational problems under extraordinary or exceptional circumstances.

When public school opportunities are not available, the Bureau operates schools for Indian children. In 1963 the Bureau operated 264 schools, enrolling 43,435 pupils and 20 dormitories housing 4,082 pupils attending public schools. The primary objective of the schools operated for Indian children is to prepare them for successful living. In Federal schools the children develop basic academic skills, acquire an understanding of the social and economic world, learn improved standards of living, follow practices which assure optimum health, acquire vocational training to qualify for gainful employment, and obtain sufficient education to enter special schools and institutions of higher learning. The schools provided by the Federal Government for Indian children meet the instructional standards required by the States in which they operate and all secondary schools are accredited so that graduates may enter college on the same basis as public school graduates. In addition to the operation of Federal schools for eligible Indian children, the Bureau conducts a limited educational program for adult reservation Indians. In 1963, 140 communities were served by this program. Courses are planned to meet specific needs of individuals and community groups and range from the most elementary reading and writing to community problems, business skills, and citizenship training.

The Bureau provides general assistance, child welfare, and miscellaneous services to Indians who do not qualify for similar services offered under Federal, State, or county welfare programs. An average monthly caseload of 17,000, no increase over 1964 for general assistance is contemplated in 1965; and child welfare care for 2,820 children, an increase of 200 over 1964.

The relocation program assists Indians from reservations to settle and secure permanent employment in non-Indian communities, and assists in a program of industrial development on or near reservations to provide local job opportunities.

The act of August 3, 1956 (70 Stat. 986) as amended, authorizes a program of adult vocational training and education in the amount of $12 million annually. This program was initiated in 1958 on a limited basis. For 1965, we are requesting $9,300,000, which will provide for approximately 3,297 institutional trainees and 1,370 on-the-job trainees.

Police services and tribal court operations are financed on Indian reservations, and special officers direct enforcement of Federal law. Failure or lack of a program to maintain order on the reservations jeopardizes or renders impossible the accomplishment of other Bureau programs.

*Education and welfare services*

| | |
|---|---|
| Appropriation, 1963 | $81,300,000 |
| Supplemental appropriation, 1963 | 1,208,400 |
| Total appropriation, 1963 | 82,508,400 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration | −27,644 |
| Transferred to "Menominee educational grants" | −176,000 |
| Total available, 1963 | 82,304,756 |
| Appropriation, 1964 | 89,235,250 |
| Total appropriation, 1964 | 89,235,250 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration | −16,800 |
| Total available, 1964 | 89,218,450 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | | |
|---|---|---|
| Educational assistance, facilities and services: | | |
| To provide for increased pay costs for fiscal year 1964 positions | +$631,750 | |
| Assistance to pupils in non-Federal schools | +500,000 | |
| Operation of additional Federal school facilities | +2,944,590 | |
| To improve operations at existing Federal school facilities | +466,610 | |
| | | +4,542,950 |
| Welfare and guidance services: | | |
| To provide for increased pay costs for fiscal year 1964 positions | +$52,000 | |
| To provide for increased child welfare caseloads | +336,600 | |
| | | +388,600 |
| Relocation and adult vocational training: | | |
| To provide for increased pay costs for fiscal year 1964 positions | +69,000 | |
| To provide for additional trainees in vocational training | +2,604,000 | |
| | | +2,673,000 |
| Maintaining law and order: | | |
| To provide for increased pay costs for fiscal year 1964 positions | +27,000 | |
| To provide for increase in the law and order program | +120,000 | |
| | | +147,000 |
| Net increase, 1965 | | +7,751,550 |
| Budget estimate, 1965 | | 96,970,000 |

*Analysis by activities*

| Activity | Fiscal year 1963, amount available | Fiscal year 1964 | | |
|---|---|---|---|---|
| | | Total appropriation | Transfers [1] | Amount available |
| 1. Educational assistance, facilities and services | $61,789,110 | $66,118,250 | −$9,200 | $66,109,050 |
| 2. Welfare and guidance services | 8,976,926 | 11,264,000 | −6,600 | 11,257,400 |
| 3. Relocation and adult vocational training | 8,090,156 | 9,420,000 | −1,000 | 9,419,000 |
| 4. Maintaining law and order | 1,961,410 | 2,433,000 | | 2,433,000 |
| Unobligated balance lapsing | 1,487,154 | | | |
| Total | 82,304,756 | 89,235,250 | −16,800 | 89,218,450 |

[1] Represents transfers to General Services Administration.

*Analysis by activities*

| Activity | Fiscal year 1963, amount available | Fiscal year 1964, amount available | Fiscal year 1965, estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. Educational assistance, facilities and services | $61,789,110 | $66,109,050 | $70,652,000 | $4,542,950 | $631,750 | $3,911,200 |
| 2. Welfare and guidance | 8,976,926 | 11,257,400 | 11,646,000 | 388,600 | 52,000 | 336,600 |
| 3. Relocation and adult vocational training | 8,090,156 | 9,419,000 | 12,092,000 | 2,673,000 | 69,000 | 2,604,000 |
| 4. Maintaining law and order | 1,961,410 | 2,433,000 | 2,580,000 | 147,000 | 27,000 | 120,000 |
| Unobligated balance lapsing | 1,487,154 | | | | | |
| Total | 82,304,756 | 89,218,450 | 96,970,000 | 7,751,550 | 779,750 | 6,971,800 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*1. Educational assistance, facilities, and services—Analysis by subactivities*

| Subactivity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| A. Assistance to pupils in non-Federal schools | $7,792,340 | $8,554,000 | $9,054,000 | $500,000 | | $500,000 |
| 1. Public schools: | | | | | | |
| (a) Navajo peripheral | 1,179,416 | 1,110,251 | 1,110,251 | | | |
| (b) Other | 6,029,152 | 6,287,749 | 6,787,749 | 500,000 | | 500,000 |
| 2. Special aids | 10,050 | 6,000 | 6,000 | | | |
| 3. Higher education | 573,722 | 1,150,000 | 1,150,000 | | | |
| B. Federal facilities | 53,376,391 | 56,492,064 | 60,522,374 | 4,030,310 | $619,110 | 3,411,200 |
| 1. Boarding schools | 40,058,135 | 41,296,022 | 44,841,222 | 3,545,200 | 474,000 | 3,071,200 |
| (Number of pupils) | (31,933) | (35,427) | (37,680) | (2,253) | | (2,253) |
| 2. Day schools | 10,648,529 | 12,145,427 | 12,600,119 | 454,692 | 114,692 | 340,000 |
| (Number of pupils) | (15,584) | (18,030) | (18,270) | (240) | | (240) |
| (Number of units) | (585) | (601) | (609) | (8) | | (8) |
| 3. Special services | 1,945,835 | 2,100,615 | 2,131,033 | 30,418 | 30,418 | |
| (a) Program direction | (1,283,407) | (1,290,000) | (1,319,883) | (29,883) | (29,883) | |
| (b) Museum | (38,521) | (35,615) | (36,150) | (535) | (535) | |
| (c) Transportation of boarding school students | (623,907) | (775,000) | (775,000) | | | |
| 4. Summer programs | 723,892 | 950,000 | 950,000 | | | |
| C. Adult education | 823,584 | 1,062,986 | 1,075,626 | 12,640 | 12,640 | |
| Total | 61,992,315 | 66,109,050 | 70,652,000 | 4,542,950 | 631,750 | 3,911,200 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*A. Assistance to pupils in non-Federal schools*

The estimate of $9,054,000 is an increase of $500,000 over 1964.

*Need for increase.*—The increase of $500,000 covers the Bureau's share under State Johnson-O'Malley plans for the increased enrollment and additional costs in public schools.

*Plan of work.*—This item covers subactivities as follows:

(1) Public schools: This item provides funds for the Johnson-O'Malley program which permits the Bureau to cooperate with States and local school districts in the education of Indian children. Local public schools are assisted with Johnson-O'Malley funds when the tax-free status of Indian lands within the boundaries of the school district create unmanageable financial problems after all other financial resources to the district have been exhausted. Assistance is provided in accordance with formal State or district plans and at contracting time funds are adjusted to meet the exact amounts needed to finance each plan.

Prior to 1959 local public schools were ineligible for entitlement for Indian pupils under Public Law 874, 81st Congress (64 Stat. 1100) administered by the Health, Education, and Welfare Department. The act of August 12, 1958, amended Public Law 874 so that school districts educating Indian children may now receive payments for Indian children on the same basis as for other federally affected children. Bureau efforts are carefully coordinated with the Office of Education in the Department of Health, Education, and Welfare to insure no duplication of assistance for the same service. Public Law 874 requires a 3-percent impact and a minimum average daily attendance of 10 federally connected children to qualify. Some public schools enrolling Indian children do not qualify because of this provision. Johnson-O'Malley funds are used in these instances. Other public schools located on Indian reservations with little or no local tax resources are not able to operate at acceptable State standards without additional assistance over and above the funds they receive from State aids and their Public Law 874 entitlements. Johnson-O'Malley assistance is used to supplement these other available funds to permit operation at adequate State standards. Johnson-O'Malley aids are limited to financing needs under these and other extraordinary and exceptional circumstances, after all other aids to the district have been fully used.

Increased enrollment and increased education costs account for increased need of assistance from the Bureau under the Johnson-O'Malley program. The Bureau must be in a position to meet justifiable assistance to public schools enrolling Indian children to insure their continued enrollment in terms of today's numbers and increasing costs.

The Bureau meets the full per capita cost for the education of Navajo pupils domiciled in Federal dormitories who are attending public schools outside their districts.

The following tables list the Johnson-O'Malley education contracts:

(*a*) *Navajo peripheral*

| | 1963 | | 1964 | | 1965 | | Change | |
|---|---|---|---|---|---|---|---|---|
| | Pupils | Amount | Pupils | Amount | Pupils | Amount | Pupils | Amount |
| Total | 2,300 | $1,179,416 | 2,355 | $1,110,251 | 2,355 | $1,110,251 | ..... | ..... |
| Arizona: | | | | | | | | |
| Flagstaff | 315 | 140,549 | 300 | 126,900 | 300 | 126,900 | ..... | ..... |
| Holbrook | 420 | 212,242 | 420 | 199,780 | 420 | 199,780 | ..... | ..... |
| Snowflake | 118 | 66,763 | 240 | 105,471 | 240 | 105,471 | ..... | ..... |
| Winslow | 288 | 128,803 | 300 | 120,900 | 300 | 120,900 | ..... | ..... |
| New Mexico: | | | | | | | | |
| Albuquerque | 368 | 186,212 | 350 | 165,680 | 350 | 165,680 | ..... | ..... |
| Aztec | 127 | 73,980 | 120 | 72,153 | 120 | 72,153 | ..... | ..... |
| Manuelito Hall | 539 | 303,000 | 500 | 256,500 | 500 | 256,500 | ..... | ..... |
| Utah: Richfield | 125 | 67,867 | 125 | 62,867 | 125 | 62,867 | ..... | ..... |

(b) *Other*

| State and district | Amount | | | |
|---|---|---|---|---|
| | 1963 | 1964 | 1965 | Change |
| Total | $6,029,152 | $6,287,749 | $6,787,749 | +$500,000 |
| Aberdeen: | | | | |
| Nebraska State | 170,000 | 170,000 | 170,000 | |
| North Dakota State | 214,000 | 200,000 | 200,000 | |
| South Dakota State | 485,580 | 500,000 | 500,000 | |
| Minneapolis: | | | | |
| Minnesota State | 198,592 | 200,000 | 200,000 | |
| Wisconsin State | 100,000 | 125,000 | 125,000 | |
| Iowa District | 26,408 | 32,959 | 32,959 | |
| Billings: | | | | |
| Montana State | 133,991 | 100,000 | 100,000 | |
| Wyoming State | 26,050 | 18,000 | 18,000 | |
| Gallup: | | | | |
| New Mexico State | 1,049,073 | 1,049,073 | 1,130,073 | +81,000 |
| Colorado Districts | 95,815 | 110,927 | 110,927 | |
| Juneau: Alaska State | 599,441 | 599,441 | 599,441 | |
| Muskogee: Oklahoma State | 435,524 | 418,000 | 418,000 | |
| Anadarko: Kansas District | 16,200 | 10,000 | 10,000 | |
| Phoenix: | | | | |
| Arizona State | 2,253,000 | 2,515,349 | 2,934,349 | +419,000 |
| Nevada State | 60,000 | 60,000 | 60,000 | |
| Utah District | 10,000 | 15,000 | 15,000 | |
| Oshrin Hospital | 2,978 | 4,000 | 4,000 | |
| Portland: | | | | |
| Idaho State | 95,000 | 100,000 | 100,000 | |
| Washington State | 52,000 | 60,000 | 60,000 | |
| Seminole Agency | 5,500 | | | |

(2) Special aids: This item provides lunches for Seminole children in Florida.

(3) Higher education: Bureau scholarship funds provide assistance for students who cannot qualify for other types of scholarship aid and supplement partial aids students receive from other sources. This item provides grants to 1,300 college students. In 1965 the average grant will be $885 per student. The Bureau funds, together with funds provided by private and public organizations, various schools, some States, tribal groups, and Federal and tribal loans, assist Indian young people to attend schools of higher learning who would be unable to attend without assistance. In 1963, 39 tribes provided over $800,000, and other non-Federal sources provided $220,000 for scholarships. The number of Indian high school graduates is increasing each year as is the percentage of Indian high school graduates who want to go to college.

*B. Federal facilities*

The estimate of $60,522,374 is an increase of $4,030,310 over 1964.

*Need for increase.*—The increase of $4,030,310 consists of:

(1) $3,545,200 in boarding schools representing $2,787,200 for increased enrollment of 2,253 pupils, and $284,000 to meet increased costs of plant operations and $474,000 increased pay cost.

(2) $454,692 in day schools representing $157,390 for increased enrollment in eight additional day school units; and $182,610 to meet increased costs of plant operations and $114,692 increased pay cost.

Increased costs of plant operations in boarding schools and day schools: This increase is requested to cover Educations' share of increased costs of plant operation required to meet minimum standards of student and employee health and safety and to protect the educational plant. Plant operations include heating and lighting; water and sewage treatment, and disposal; garbage and refuse disposal; grounds maintenance; custodial services; and fire protection.

(3) $30,418 in special services represents an increase in pay costs for program direction and museums.

*Plan of work.*—An analysis of the item by subactivity follows:

| | 1963 | | 1964 | | 1965 | | Increase | | |
|---|---|---|---|---|---|---|---|---|---|
| | Pupils | Amount | Pupils | Amount | Pupils | Amount | Pay cost | Pupils | Program amount |
| (1) Boarding schools | 31,933 | $40,058,135 | 35,427 | $41,296,022 | 37,680 | $44,841,222 | $474,000 | 2,253 | $3,071,200 |
| (2) Day schools | 15,584 | 10,648,529 | [1] 18,030 | 12,145,427 | [1] 18,270 | 12,600,119 | 114,692 | [1] 240 | 340,000 |
| (3) Summer programs | | 723,892 | | 950,000 | | 950,000 | | | |
| (4) Special services | | 1,945,835 | | 2,100,615 | | 2,131,033 | 30,418 | | |
| (a) Program direction | | (1,283,407) | | (1,290,000) | | (1,319,883) | (29,883) | | |
| (b) Museum | | (38,521) | | (35,615) | | (36,150) | (535) | | |
| (c) Transportation of boarding school students | | (623,907) | | (775,000) | | (775,000) | | | |
| Total | 47,517 | 53,376,391 | 53,457 | 56,492,064 | 55,950 | 60,522,374 | 619,110 | 2,493 | 3,411,200 |

[1] Represents full enrollment of capacity of added facilities.

(1) Boarding schools: This subactivity is analyzed as follows:

| Type of operation | Number of pupils | | | Increase |
|---|---|---|---|---|
| | 1963 | 1964 | 1965 | |
| Boarding schools | 27,851 | 31,569 | 33,694 | 2,125 |
| Dormitory only operations | 4,082 | 3,858 | 3,986 | 128 |
| Total | 31,933 | 35,427 | 37,680 | 2,253 |

(2) Day schools:

| | 1963 | | 1964 | | 1965, number of units | Increase, number of units |
|---|---|---|---|---|---|---|
| | Number of units | Number of pupils | Number of units | Number of pupils | | |
| (2) Day schools | 585 | 15,584 | 601 | 18,030 | 609 | 8 |

(3) Special services:

(*a*) Program direction: This item provides for the salaries and expenses of the education employees rendering field supervisory service as well as the education personnel in the central office. These education specialists plan the overall academic and vocational program for Federal Indian schools and in cooperation with State and local officials develop plans for increased enrollment of Indian pupils in the public school system.

(*b*) Museum: This item provides for the operation of the Blackfeet Museum at Browning, Mont.

(*c*) Transportation of boarding school students: This item provides for plane, bus, and rail fares and incidental expenses of transporting pupils from their homes to and from boarding schools.

*C. Adult education*

This program offers general education instruction to adults where the need is especially acute because the Indians have missed the advantage of education in their youth. It provides a type of training which meets the needs and abilities of the individual Indians as citizens. The program ranges in nature from instruction in basic arithmetic and language skills to continuation of elementary and high school education, instruction, and assistance to increase participation in local community organizations; informing Indian parents of their role and responsibilities in the education of their children and strengthening their participation in parent-teacher activities.

*Federal education programs.*—Federal education programs help to bridge a cultural and educational gap, and thus they prepare Indian youth and adults to take advantages of further education and employment opportunities.

1. Federal elementary programs. The instructional program in Federal elementary schools is designed to meet the special English language needs of Indian children, in addition to teaching the basic skill subjects ordinarily taught in elementary grades. The Bureau attempts to provide schooling, especially in the elementary grades, within the home environment to permit the two-way communication between Indian homes and the school, and to preserve the strength of home ties in the overall development of Indian children. To carry out this objective the Bureau operates day schools wherever feasible, and when boarding schools are necessary, they are located as near the homes as reasonably possible. Seventy-one percent of Indian children in Federal schools are enrolled in grades beginners through eight.

2. Federal high schools. Federal high school programs are also designed to meet the special education and English language needs of Indian pupils. The programs are those of basic education needed by all citizens for full participation in American life plus emphasis on prevocational programs leading to more advanced technical, vocational, and subprofessional training. Practical arts such as home economics for girls and general shop for boys are required of all students as part of the regular high school course.

Special instructional programs at elementary and high school levels are offered for approximately 3,500 overage pupils. Each student is permitted to progress at his individual rate toward high school graduation.

In 1963 the Bureau offered basic high school instruction in 27 schools, and special curriculums for overage students in 10 schools. All Federal high schools meet the accreditation standards of the States in which the schools are located. Six Federal high schools have achieved the higher education standards required by and are now accredited by the North Central Association of Colleges & Secondary Schools and the Northwest Association of Secondary & Higher Schools. To meet the special needs of Indian students Federal high schools provide, in addition to the above, guidance and counseling programs, programs to increase English language capability, and programs to broaden the experiences of the students.

Post high school vocational and technical courses are offered at Haskell Institute, Chilocco Indian School, and the Institute of American Indian Arts in modern office work, accounting machines, and business practices, electronics, auto mechanics, auto body work, heavy equipment operation, commercial cooking, cosmetology, vocations related to fine and applied arts, and numerous other trades. In addition, high school graduates take advantage of institutional vocational training available under Public Law 959. In 1963, 1,007 students were enrolled in post high school technical courses at Haskell, Chilocco, and the Institute of American Indian Arts. This is exclusive of the 2,911 other Indians who were enrolled in 626 courses in 248 approved vocational training institutes under the adult vocational training program.

3. Summer programs. The summer programs carried on by tribal groups in cooperation with the Bureau and many other interested groups have been successful in expanding the background experience of Indian youth and reducing the incidence of juvenile delinquency among Indian boys and girls. These programs are locally planned and assisted, where necessary, by the Bureau. In the summer of 1963, 20,447 Indian youths participated in varying degrees in such programs as student work projects (plant maintenance and repair, building improvements, and forestry); academic classes to earn extra credit or make up credit; special instruction in science, mathematics, English, and typing; supervised recreation; educational field trips; preschool preparation; and special English instruction for elementary and high school students. Many tribes participated either by contributing money or personnel to the programs. Local non-Indian citizens and nontribal groups in some communities have cooperated with Indian tribes and the Bureau in summer program activities.

College education. The number of students enrolled in college is increasing but more students could and should pursue higher education courses. Also the number who fail to complete their full college course is of concern. The financial struggle resulting from inadequate financial help has prompted too many potential college students to take marginal jobs, or enroll in better financed programs of assistance in trade training. With increased financial help for college bound students it is expected that the number of students enrolling in degree courses will increase.

Indian participation in school affairs is greater than is generally recognized. A survey in 1962 revealed Indian participation on 284 local school boards and 414 parent-teachers' associations.

The dropout rate of Indian students in Federal schools in calendar year 1959 was 50 percent higher than the national average at that time. The number of dropouts in Federal schools is now decreasing. Between 1960 and 1963 the dropout rate in Bureau schools changed from 4.6 percent of total enrollment to 3.8 percent of total enrollment. The Bureau of Indian Affairs believes that this improvement is related to additional funds for guidance and instruction, increased parental interest in education and participation in school affairs, summer program activities, and improved plant facilities.

Average daily attendance in Bureau schools has increased over the years. In 1963 average daily attendance in Federal schools was 88.9 percent as compared to a national average daily attendance of 89.3 percent. A few schools experience irregular and poor attendance.

BASIC PROBLEMS ENCOUNTERED BY THE BUREAU IN CARRYING OUT ITS EDUCATION RESPONSIBILITY

1. By comparison with the increase of school-age children in the general population, the Indian school population is increasing at a higher rate. This high rate of population increase adds to the nationwide problem of providing

adequate school spaces and places an unusually heavy burden on existing Federal facilities. Where public schools are not available, the Bureau must provide additional space in Federal facilities.

2. Geographic and cultural isolation and lack of roads make continued Federal operations necessary. Many of these Federal operations because of isolation are boarding schools. As roads and bus routes can be developed, additional numbers of Indian children can attend on a day basis. This is one of the Bureau's educational objectives. A major obstacle at present is the lack of development of the road net; consequently the development and maintenance of additional school bus routes is necessary to make day schools possible.

3. Federal schools must be concerned with developing quality instruction to give Indian youths background and high level skills so they may take advantage of all employment opportunities including but not limited to the professions, service occupations and trades.

4. Indian education must face the educational and cultural gap that exists between Indians and non-Indians. The median educational level of the non-Indian population is approximately the 11th grade while the education of Indian groups is approximately half that level.

5. How to bring about the rapid changes necessary to bridge the educational gap and at the same time avoid creating a disturbing cultural breach between parents and children is a major problem. However, the educational handicap of the Indian people must be overcome quickly if they are to manage their own affairs successfully in a modern world.

*2. Welfare and guidance services*

| Subactivity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) General assistance | $4,601,834 | $5,514,817 | $5,514,817 | | | |
| (Caseload) | (15,660) | (17,000) | (17,000) | | | |
| (b) Other welfare assistance | $1,811,943 | $2,222,490 | $2,559,090 | +$336,600 | | +$336,600 |
| (1) Child welfare | ($1,736,194) | ($2,139,690) | ($2,476,290) | +($336,600) | | +($336,600) |
| (Caseload) | (2,420) | (2,620) | (2,820) | +(200) | | +(200) |
| (2) Miscellaneous assistance | ($75,749) | $(82,800) | ($82,800) | | | |
| (c) Housing | | $500,000 | $500,000 | | | |
| (d) Social services | $2,563,149 | $3,020,093 | $3,072,093 | +$52,000 | +$52,000 | |
| Total | $8,976,926 | $11,257,400 | $11,646,000 | +$388,600 | +$52,000 | +$336,600 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

NOTE.—The estimate for 1965 is $11,646,000, an increase of $388,600 over 1964. The increase includes $52,000 for increased pay costs and $336,600 for the welfare and guidance program.

*(a) General assistance*

No increase in funds is requested. The development of employment opportunities through such activities as public works projects, intensive use of force account labor, industrial development, and an accelerated employment assistance program is having an impact upon the need for general assistance. These activities are providing employment opportunities for many Indians who otherwise would be on the general assistance rolls. The continuation of these economic activities in fiscal year 1965 will make it possible to provide general assistance within the funds available without increase.

*Plan of work.*—General assistance will be provided to needy Indians on reservations who are not eligible for public assistance under the Social Security Act (old-age assistance, aid to families with dependent children, aid to the blind, aid to the permanently and totally disabled), and for whom such assistance is not available from established welfare agencies or through tribal resources.

*(b) Other welfare assistance*

The estimate of $2,559,090 is an increase of $336,600 over 1964.

(1) Child welfare: The estimate of $2,476,290 is an increase of $336,600 over 1964.

*Need for increase.*—The increase will provide for foster care or necessary institutional care for approximately 200 additional Indian children and for increased costs of institutional and foster care for children for whom the Bureau is already providing such care. There is a gradual increase in the child population on reser-

vations, and with improved case finding by social workers and greater awareness of children's needs by tribal courts, an increased number of neglected, handicapped, and dependent children come to the attention of the Bureau for whom care away from their homes must be provided.

*Plan of work.*—Necessary foster care and appropriate institutional care will be provided for Indian children on reservations for whom such care is not available through established welfare agencies.

(2) Miscellaneous assistance: No increase in funds is requested.

(c) *Housing*

No increase in funds is requested. The program will continue on a pilot basis.

*Plan of work.*—These funds will be used as a contribution by the Bureau for housing improvement in cases where existing housing is far below the standards compatible with decency and health, and where improved housing cannot be secured through other available housing programs.

Full utilization will be made of existing services in the Bureau for family selection, social welfare guidance, credit problems, assistance and supervision during design and construction phases.

(d) *Social services*

The increase includes $52,000 for pay costs.

*3. Relocation and adult vocational training*

| Subactivity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. Relocation services | $2,748,401 | $2,747,000 | $2,792,000 | +$45,000 | +$45,000 | |
| 2. Adult vocational training | 5,341,742 | 6,672,000 | 9,300,000 | +2,628,000 | +24,000 | +$2,604,000 |
| Total | 8,090,143 | 9,419,000 | 12,092,000 | +2,673,000 | +69,000 | +2,604,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

The estimate of $2,792,000 for relocation services is an increase of $45,000 over 1964. The $45,000 increase is for increased pay costs.

The estimate of $9,300,000 for adult vocational training is an increase of $2,628,000 over 1964. The increase includes $24,000 for increased pay costs and $2,604,000 for program operations.

*Need for increase.*—The increase will provide the full range of services both through entering employment direct from places of origin on the reservation, and through adult vocational training, including employment following training, for the present backlog of approximately 800 applicants awaiting this service.

*Plan of work.*—These two programs provide financial assistance to Indians to enable them to become self-sufficient through adequate employment. The relocation services phase of the program provides services and financial assistance to Indians who are prepared to accept immediate employment. The adult vocational training program (Public Law 959) provides training which will lead to self-support.

Relocation services will provide service and financial assistance to 1,800 units (4,140 persons). The funds requested for adult vocational training services will provide services and financial assistance to 3,297 units (7,050 persons) in training. Financial assistance and services will also be available for 1,370 units (4,520 persons) in on-the-job training.

*4. Maintaining law and order*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Maintaining law and order | $1,961,410 | $2,433,000 | $2,580,000 | +$147,000 | +$27,000 | +$120,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

The estimate of $2,580,000 for "Maintaining law and order" is an increase of $147,000 over 1964. The increase includes $27,000 for increased pay costs and a program increase of $120,000.

*Need for increase.*—Tribes which have in the past borne the entire cost of law enforcement are finding themselves financially unable to continue this practice. The increase of $120,000 requested will be used to render some assistance to those tribes who are in the most dire need of financial assistance.

*Plan of work.*—Maintenance of law and order on Indian reservations is a Federal and tribal responsibility except in those areas where the States have assumed jurisdiction pursuant to congressional authorization.

Tribes have been encouraged to assume financial responsibility for law and order, and some of them are now spending more than the Bureau. The resources of other tribes, however, are running low and their inability to carry the financial burden affects the quality of their law and order programs.

The Bureau will direct and supervise reservation programs where necessary, leaving tribal financial arrangements in force and effect where the tribes are able to assume them. Where funds permit, however, both full financial responsibility and program direction will be assumed by the Bureau in the interest of more effective law and order.

In addition, the Bureau will increase its efforts to persuade tribal enactment of modern, effective codes of law to replace outmoded tribal codes or departmental codes of Indian offenses.

Expansion of services to emphasize preventive programs will be continued.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $81,020,794 | $89,346,412 | $96,970,000 | +$7,623,588 |
| Transferred to "Menominee education grants, 1963" (77 Sta. 28) | 176,000 | | | |
| Transferred to "Operating expenses, Public Buildings Services," General Services Administration (75 Stat. 353 and 76 Stat. 728) | 27,644 | 16,800 | | −16,800 |
| Contract authorization (48 U.S.C. 50d-1) | −772,038 | −900,000 | −900,000 | |
| Applied to contract authorization (48 U.S.C. 50d-1) | +568,846 | +772,038 | +900,000 | +127,962 |
| Unobligated balance lapsing | 1,487,154 | | | |
| Appropriation | 82,508,400 | 89,235,250 | 96,970,000 | +7,734,750 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 38,465,620 | 44,081,220 | 46,919,170 | +2,837,950 |
| 12 Personnel benefits | 2,671,339 | 3,140,026 | 3,312,131 | +172,105 |
| 21 Travel and transportation of persons | 2,209,149 | 2,580,521 | 2,856,521 | +276,000 |
| 22 Transportation of things | 931,655 | 974,653 | 1,303,653 | +329,000 |
| 23 Rent, communications, and utilities | 1,760,473 | 1,858,994 | 1,952,994 | +94,000 |
| 24 Printing and reproduction | 43,029 | 49,323 | 49,823 | +500 |
| 25 Other services | 2,792,178 | 2,728,721 | 3,048,336 | +319,615 |
| Services of other agencies | 240,762 | 234,558 | 331,003 | +96,445 |
| 26 Supplies and materials | 13,230,092 | 12,902,152 | 13,167,320 | +265,168 |
| 31 Equipment | 2,449,280 | 1,565,482 | 1,782,577 | +217,095 |
| 41 Grants, subsidies, and contributions | 17,367,221 | 20,385,292 | 23,401,002 | +3,015,710 |
| 42 Insurance claims and indemnities | 1,724 | | | |
| Subtotal | 82,162,522 | 90,500,942 | 98,124,530 | +7,623,588 |
| Deduct quarters and subsistence charges | 1,141,728 | 1,154,530 | 1,154,530 | |
| Total obligations | 81,020,794 | 89,346,412 | 96,970,000 | +7,623,588 |

INDIAN SCHOOL CHILDREN

Chairman HAYDEN. How many Indian children are in school under the auspices of the Bureau of Indian Affairs?

Mr. NASH. The total school-age population, 6- to 18-year-olds, Mr. Chairman, was 137,031, last year. Some of these children go to school in Federal schools, some go to religious schools, mission schools and others, and some, of course, go to public schools.

Chairman HAYDEN. Break this down to show the number of pupils in Bureau of Indian Affairs schools and the number in public schools.

Mr. NASH. Yes, sir. In the Federal system, both boarding and day, our school year 1963–64 estimated enrollments are 53,500 children; there are about 9,200 children in mission schools, and in the public schools there are in excess of 72,000.

Chairman HAYDEN. That is a remarkable increase compared to a few years ago.

Mr. NASH. Yes, sir; that is.

ASSISTANCE TO PUPILS IN NON-FEDERAL SCHOOLS

Chairman HAYDEN. You indicate that the cost of the Johnson-O'Malley contracts will be $500,000 more this year than in 1964. Are there to be more such contracts or are the contracts to be more costly?

Mr. NASH. Mr. Chairman, the increase of $500,000 in the Johnson-O'Malley program is required to meet both increased costs and increased enrollment, particularly in Arizona and New Mexico. For example, New Mexico has had an 8 percent annual increase in the number of reservation Indian children for the past 3 years.

Arizona costs are increasing approximately 10 percent annually and, also, it has an annual increase in the numbers of its children.

So the answer to your question, sir, is that there are not more contracts, because the States remain the same, but there are more children that we are contracting for.

Chairman HAYDEN. There are more Indians?

Mr. NASH. And more costs.

TRANSPORTATION OF BOARDING SCHOOL CHILDREN

Chairman HAYDEN. In what areas do you experience most of your transportation of boarding school students?

Mr. NASH. The Four Corners area, Mr. Chairman, and Alaska are the particular sources of our transportation.

STATUS OF SUMMER PROGRAM

Chairman HAYDEN. What is the status of your summer program? Last year you did not get what you asked for, did you?

Mrs. THOMPSON. Although last year we did not get all of the funds requested in our total education budget, we were able through some reduction of other programs to budget funds for the summer programs.

Our summer programs started 4 years ago in a few locations. They were limited the first summer primarily to recreational activities and trips to give Indian children new experiences. Approximately 2,000 children were served in the summer of 1961. The summer program activities have since been expanded both in scope of activities and numbers of children served. Last summer, the summer of 1963, 20,447 participated in a variety of activities.

The programs are planned at the local community level. Most of the programs are cooperatively planned and carried out involving in addition to the Bureau, tribal groups, Indian health, local organizations, church groups, and interested non-Indian citizens. Seventeen to twenty tribal groups participated each summer, some of them with

substantial contributions of funds and time of individuals, which greatly expands the number of children who can be served.

Chairman HAYDEN. Can you illustrate some actual cases where pupils benefited from the program?

Mrs. THOMPSON. The great variety of programs fall into these major categories: work programs, work-study programs, academic programs, recreational and camping programs, and kindergarten programs. In the summer of 1963, 25 boys and 24 girls at Sherman Institute earned $21,078.33 in jobs on the school campus, in the surrounding cities and national parks.

A total of 1,127 students participated in summer work programs of some kind at several locations in 1963. The opportunity to earn their own spending money and clothing takes these teenagers back to school in greater numbers. At one school every boy who was employed in a maintenance work program on the campus returned to school in the fall.

Chairman HAYDEN. Does the program consist of just projects of the nonacademic kind, or is attention paid to academic subject matter?

Mrs. THOMPSON. There is a growing interest on the part of students to attend regular classes during the summer. Attendance is voluntary and opportunities are provided to improve basic education skills at the elementary level such as spoken and written English, and reading; to earn extra credits or to make up credits at the high school level. In 1962, the number attending academic programs was 1,838, which increased to 4,177 in the summer of 1963. One elementary school on the Navajo Reservation had three times the number of children enroll the first day of last summer's session than were expected.

SPECIAL PROGRAMS

A special academic program was offered at Haskell last summer for 11th and 12th graders interested in preparing for college. Courses in science, mathematics, and English were given, with special training in college level study habits, and special instruction in the use of the library. Many more applications were received than the 77 who could be accommodated. In 1964 courses will be given at Haskell to accommodate 200 college bound high school students.

Two years ago summer kindergarten programs were started on some reservations where English is not spoken in the homes. These, too, are popular programs which will upgrade the educational attainment of these children when they enter primary schools since they will have acquired some English and an interest in school.

Trips and recreational programs which provide new experiences and worthwhile leisure activities are paying good dividends in lessening juvenile behavior problems on Indian reservations during summer months. In addition to keeping them out of trouble, Indian children are seeing and doing new and exciting things which give greater meaning to their schoolwork when they return to school in the fall.

The summer programs are, in fact, extending the school year without making it mandatory, motivating teenagers toward more education, bringing new experiences and the outside world into reservation life, reducing behavior problems, and increasing parental responsibility through their involvement in the summer activities for their

children. Aside from the direct social and educational value of these programs, Indian children are meeting the public and creating good will toward Indians. This, in turn, increases Indian pride and gives them a feeling of worth. These results may well be the most lasting and most valued.

POVERTY PROGRAM

Chairman HAYDEN. Does your division get in on the attack on poverty program? How?

Mrs. THOMPSON. Much of what is being said and planned as an attack on poverty, the Bureau is doing within the funds appropriated for education and other programs. Regular education programs prepare youth for employment. Indians who are well educated do get good paying jobs. For example, all of the 1963 graduates of Haskell's business and trade courses were placed in employment upon graduation in jobs with beginning salaries that averaged $4,165. The highest beginning salary was $9,588 for Abel Akipik, an Eskimo who is employed at Anchorage, Alaska.

In a followup study in 1963 of a 1951 Sherman Institute graduating class of 101 students of a special 5-year program, 83 were located. Eighty of the eighty-three were employed earning wages ranging from $2 to $4.75 per hour, and salaries reaching a maximum of $6,240 per annum. Thirty-nine of the sixty-nine boys in the class served in the armed services and two made the supreme sacrifice in the Korean conflict.

The work programs, work-study programs, special educational and training programs, and the like being discussed as methods to attack poverty have been tried in the Bureau and they do get results.

The most valuable lasting results may not be directly related to either education or jobs. Expanding the experiences and opportunities of Indian youth from deprived environments gives them new inspiration and hope, and brings them in contact with others under favorable circumstances. These youth are good ambassadors for their people, and they are building public good will for themselves and their parents. This, in turn, gives these youth a personal feeling of worth and a new sense of pride in their Indian heritage which might be the basic element that activates a variety of other elements in any successful attack on poverty.

Since most Indian reservations are pockets of extreme poverty, we anticipate consideration will be given to expanding present programs as well as the initiation of new programs on Indian reservations.

INSTITUTE OF INDIAN ARTS

Chairman HAYDEN. How is the Institute of Indian Arts progressing?

Mrs. THOMPSON. The enrollment at the Institute of American Indian Arts has increased to approximately 270 this school year. The program provides a high school education of high quality, with electives in the arts and vocations related to the arts. Students may remain for 2 years beyond the high school if they wish to continue in some selected field of art.

The art productions of these students in painting, ceramics, sculpture, jewelry design, fabric design, weaving, music, and creative writing, have won for the school recognition and praise from many

quarters. Students from the institute during this first year of operation took six of the seven awards in the 1963 Contemporary Indian Arts Annual Exhibition held at the Museum of New Mexico. In the summer of 1963 the students in a summer work project produced materials and objects for the architectural embellishments of the school, offices, and business places to be constructed at the Miccosukee Reservation in Florida. Their work was of high quality, winning the praise of the Indian leaders and the architects. The quality of creative writing has earned for the school an annual poetry award to be given to a student in the creative writing class.

These students have never before had this kind of opportunity to express themselves creatively, or to give their creative potential an opportunity to be developed. There is growing evidence that this opportunity to grow creatively is easing many of the emotional and behavior problems some of the students came with. Their creative production is individual, for the most part outstanding, and with a distinct Indian quality. Along with their growth in creative expression there is growth in self-respect and pride in their Indian background.

Chairman HAYDEN. Would you furnish for the record a table showing the number of students whom you have to transport and the cost—breaking it down to show the number of students in the United States, and the number in Alaska?

Mr. NASH. Yes, sir; we will do that for the record.

(The information referred to follows:)

Approximately 7,000 students were transported to boarding schools in the fall and back to their homes in the spring in school year 1962-63. Of this number, 5,660 were from the States other than Alaska; and 1,340 were Alaskan natives, 300 of whom were students overage for their grades who enrolled in special programs at the Chemawa boarding school in Oregon, 110 were students who enrolled in technical, business, and trade courses at Haskell Institute, Lawrence, Kans., and 930 who were transported from their villages to Wrangell and Mount Edgecumbe in Alaska. In fiscal year 1963 the total cost for student transportation was $623,907; for fiscal years 1964 and 1965 it is estimated that this cost will be $775,000.

### HOUSING REPAIRS AND HOME REHABILITATION

Chairman HAYDEN. Last year you initiated a program for housing repairs and home rehabilitation for which $500,000 was appropriated. Your justifications indicate that the program will continue with the same amount of funds in fiscal year 1965 on a pilot basis. Do you have any comment on the adequacy and value of that program?

Mr. NASH. Yes, sir. We feel that this program is very essential, because when you take the programs of the Housing and Home Finance Agency and adapt them to the reservations, whether you take the low rent public housing program of PHA or the mutual help program that we are starting, you find some people that cannot repay a loan, cannot pay rent, and may not be able to do any work on their own homes. And it is for these people that this housing improvement program of ours, is intended.

Now, $500,000 is a very small amount compared to the need. We are gaining experience with it and we are just beginning to get the experience.

HOUSING SURVEYS

For example, at Fort Hall in Idaho, we surveyed 57 houses of the most needy people on the welfare program whom we knew could not be helped by the public housing programs. Twenty houses are under repair or construction at the present time.

In Montana we have surveyed 47 houses. Construction or rehabilitation of those that can be rehabilitated will start in the spring.

At Fort Totten 48 houses have been surveyed. We will start construction or rehabilitation again in the spring.

In Minnesota, in a very depressed community, 67 houses have been surveyed and we will start construction in the spring.

So our experience is not complete. We have made a beginning and we are finding that our hopes that most of these houses could be repaired and would not have to be constructed from scratch are not being borne out by our surveys.

When we get into many of these homes, we find they are in such poor condition it would be a waste of money to make repairs. So that this has developed into partly a repair and partly a new construction program.

TYPE OF HOUSE TO BUILD

Chairman HAYDEN. That comes to the question of what type of house you can build for a modest amount of money.

Mr. NASH. Yes, sir. We feel we should build or remodel houses that are modern in the sense that there will be separate sleeping places for the parents and children, that will have plumbing and light, and modern heat, that are adequate and substantial, but are not luxurious by any means.

MAINTAINING LAW AND ORDER

Chairman HAYDEN. Would you please comment on your item for maintaining law and order? It would be well, I believe, to include in the record information as to the tribes for which the Federal Government pays the expenses of maintaining law and order, and the amounts expended for this purpose. I would like to have it for both fiscal years 1964 and 1965.

Mr. NASH. We will provide that for the record, Mr. Chairman.

(The information referred to follows:)

*Reservations where Federal Government finances law and order*

| Area and reservation | Amount programed fiscal year 1964 | Amount proposed fiscal year 1965 |
|---|---|---|
| Aberdeen: | | |
| Cheyenne River | $18,190 | $18,190 |
| Crow Creek | 90,517 | 90,517 |
| Lower Brule | | |
| Fort Berthold | 59,201 | 59,201 |
| Pine Ridge | 76,216 | 76,216 |
| Rosebud | 89,463 | 89,463 |
| Sisseton | 24,417 | 24,417 |
| Standing Rock | 104,746 | 104,746 |
| Turtle Mountain | 126,595 | 126,595 |
| Devils Lake | | |
| Billings: | | |
| Blackfeet | 39,652 | 47,652 |
| Crow | 44,559 | 49,559 |
| Flathead | 34,021 | 37,021 |
| Fort Belknap | 68,884 | 78,884 |
| Rocky Boys | | |
| Fort Peck | 45,770 | 65,770 |
| Northern Cheyenne | 62,039 | 62,039 |
| Wind River | 52,438 | 52,438 |
| Gallup: | | |
| Ute Mountain | 28,841 | 28,841 |
| Southern Ute | | |
| United Pueblos | 126,290 | 136,290 |
| Zuni | 35,800 | 55,800 |
| Mescalero | 20,447 | 35,447 |
| Jicarilla | 8,100 | 8,100 |
| Navajo | 44,328 | 44,328 |
| Minneapolis: Red Lake | 111,410 | 111,410 |
| Phoenix: | | |
| Colorado River | 8,690 | 13,690 |
| Hualapai | 7,260 | 7,260 |
| Havasupai | 3,385 | 3,385 |
| Fort Apache | 30,276 | 39,276 |
| Duck Valley | 16,095 | 16,095 |
| Fort McDermitt | 4,850 | 4,850 |
| Pyramid Lake | 4,690 | 4,690 |
| Walker River | 5,330 | 5,330 |
| Papago | 88,777 | 88,777 |
| Pima | 77,546 | 77,546 |
| Salt River | 41,454 | 41,454 |
| Fort McDowell | | |
| San Carlos | 53,807 | 68,807 |
| Uintah and Ouray | 18,362 | 18,362 |
| Hopi | 58,434 | 58,434 |
| Portland: | | |
| Colville | 52,908 | 52,908 |
| Spokane | | |
| Yakima | 41,991 | 41,991 |
| Fort Hall | 65,937 | 65,937 |
| Coeur d'Alene | 49,351 | 49,351 |
| Nez Perce | | |
| Warm Springs | 29,844 | 29,844 |
| Makah | 72,115 | 72,115 |
| Lummi | | |
| Skokomish | | |
| Central office: Navajo-Hopi joint use area | 56,020 | 48,185 |

Senator McGEE. Will you please include in the record a statement or table showing both the Federal and tribal contributions to law and order on the Wind River Reservation during the current fiscal year?

How much is included in your estimates for this purpose for next year?

Would you say that to the best of your knowledge present arrangements with the two tribes for this purpose are now satisfactory?

Mr. NASH. To the best of our knowledge the situation at Wind River is satisfactory to both tribes. We have no knowledge that either tribe plans on a change.

(The table referred to follows:)

*Law and order costs on Wind River Reservation, fiscal year 1964*

| | Federal funds | Shoshone tribal funds | Arapaho tribal funds |
|---|---|---|---|
| Fiscal year 1964 | $52,438 | ---------- | $38,350 |
| Fiscal year 1965 | 52,438 | ---------- | 38,350 |

### Survey of Indian Education

Chairman Hayden. Last year the conferees directed that the proposed survey of Indian education be conducted within the amount of funds appropriated. Would you please advise the status of this survey?

Mr. Nash. Yes, Mr. Chairman; we have begun it, but we are not very far along with it. I brought back into the service one of our most experienced Bureau people, the former superintendent of the United Pueblo Agency, Dr. Sophie Aberle, to design this study for us. Some things we have concluded that we could get for ourselves within the Bureau of Indian Affairs more efficiently than we could get the information from outside.

### Updating educational statistics

For example, we are updating our educational statistics and improving the method of correcting them. We are also in the process of evaluating the achievement scores in tests of the children in our schools and trying to determine the adequacy of our own testing program.

### Dropout Research

We have been contemplating, but have not executed, contracts for some special research in the field of dropout, of English language capability, the teaching of English to bilingual students. We have drawn up the proposals, but we have not executed the contract.

Senator Bartlett. Mr. Chairman, may I ask one question?

Chairman Hayden. Yes.

Senator Bartlett. Commissioner Nash, will you continue the surveys in the coming year with available funds? I do not note anything in the budget for it in 1965.

Mr. Nash. Yes, sir. We did not put a special item in the budget, because we were directed by the Congress to carry the study forward, but to pay for it out of regular appropriations.

In other words, a special amount was not set to one side and we will continue the survey. We did not put a special amount in it, because we concluded the Congress meant us to pay for it within the regular educational program.

Senator Bartlett. You will be able to fund it?

Mr. Nash. We will be able to fund it. Possibly it will not be within the scope of the study that we contemplated last year, but we will have the money and we will have enough to do a feasible research job.

Senator Bartlett. Thank you.

RESOURCES MANAGEMENT

Chairman HAYDEN. There will be printed in the record the justifications for the 1965 budget estimate for "Resources management" amounting to $40,728,000. This is an increase of $3,054,700 over the appropriation for fiscal year 1964.

(The justifications referred to follow:)

HIGHLIGHT STATEMENT

The purpose of this appropriation is to promote the economic advancement of the Indians in the continental United States including natives of Alaska through the utilization of their resources.

To carry out this purpose the Bureau of Indian Affairs is responsible for the management, development, improvement, and protection of resources and appurtenant facilities of Indians under the jurisdiction of the Bureau.

The long-range program objective is to improve the economic and social conditions among Indians to the point where Federal financing will no longer be required to develop and utilize their resources.

During the last fiscal year the Bureau carried out this objective through active management programs which were aimed toward increased Indian participation in the management of Indian-owned resources.

For fiscal year 1965 emphasis is being placed on the development phase of Indian resources while at the same time carrying on the custodial-type activities necessary for the protection and preservation of such resources.

*Resources management*

| | |
|---|---|
| Appropriation, 1963 | $34,300,000 |
| Supplemental appropriation, 1963 | 1,290,000 |
| Total appropriation, 1963 | 35,590,000 |
| Comparative transfer to other accounts | −93,000 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration | −57,000 |
| Total available, 1963 | 35,440,000 |
| Appropriation, 1964 | 37,691,300 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration | −18,000 |
| Total available, 1964 | 37,673,300 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | |
|---|---|
| Forest and range lands: | |
| To provide for increased pay costs for fiscal year 1964 positions | 70,100 |
| To provide funds for timber sales program | 51,000 |
| Total | 121,100 |
| Agricultural and industrial assistance: | |
| To provide for increased pay costs for fiscal year 1964 positions | 84,100 |
| To provide funds for additional personnel to service the growing number of loan and financing transactions, for increased protection and management of reindeer herds in western Alaska, additional personnel necessary for establishment and operation of industrial and resource-based enterprises on Indian reservations, additional staff to keep abreast of the flow of accelerated tribal activity and employment of staff required in the planning, development, and execution of the mutual help housing program | 739,000 |
| Total | 823,100 |

| | |
|---|---|
| Soil and moisture conservation: | |
| To provide for increased pay costs for fiscal year 1964 positions | $90,400 |
| Decrease in program base | −600,000 |
| Total | −509,600 |
| Maintenance of roads: | |
| To provide for increased pay costs for fiscal year 1964 positions | 10,800 |
| To provide funds for increased regular maintenance on school bus routes | 450,000 |
| Total | 460,800 |
| Development of Indian arts and crafts: To provide for increased pay costs for fiscal year 1964 positions | 5,300 |
| Management of Indian trust property: | |
| To provide for increased pay costs for fiscal year 1964 positions | 99,400 |
| To provide funds for additional real property management and real estate staff | 455,000 |
| Total | 554,400 |
| Repair and maintenance of buildings and utilities: | |
| To provide for increased pay costs for fiscal year 1964 positions | 54,000 |
| To provide funds for repair and maintenance of new buildings | 1,550,000 |
| Total | 1,604,000 |
| Operation, repair, and maintenance of Indian irrigation systems: | |
| To provide for increased pay costs for fiscal year 1964 positions | 4,600 |
| Decrease in program | −9,000 |
| Total | −4,400 |
| Net increase, 1965 | 3,054,700 |
| Budget estimate, 1965 | 40,728,000 |

***Analysis by activities***

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 | | |
|---|---|---|---|---|
| | | Appropriation | Transfers [1] | Amount available |
| 1. Forest and range lands | $4,349,445 | $4,804,100 | −$1,000 | $4,803,100 |
| 2. Fire suppression | 604,435 | 140,000 | | 140,000 |
| 3. Agricultural and industrial assistance | 5,009,424 | 5,499,400 | −9,000 | 5,490,400 |
| 4. Soil and moisture conservation | 5,722,676 | 5,917,600 | | 5,917,600 |
| 5. Maintenance of roads | 2,849,872 | 3,134,800 | | 3,134,800 |
| 6. Development of Indian arts and crafts | 293,153 | 312,700 | | 312,700 |
| 7. Management of Indian trust property | 5,290,523 | 5,921,600 | −8,000 | 5,913,600 |
| 8. Repair and maintenance of buildings and utilities | 9,525,317 | 10,642,700 | | 10,642,700 |
| 9. Operation, repair, and maintenance of Indian irrigation systems | 1,152,547 | 1,318,400 | | 1,318,400 |
| Unobligated balance lapsing and comparative transfers to other accounts | [2] 735,868 | | | |
| Total | 35,533,260 | 37,691,300 | −18,000 | 37,673,300 |

[1] Represents transfers to General Services Administration.
[2] Represents $643,312 unobligated balance and $92,556 comparative transfer to other accounts.

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. Forest and range lands | $4,349,445 | $4,803,100 | $4,924,200 | $121,100 | $70,100 | $51,000 |
| 2. Fire suppression | 604,435 | 140,000 | 140,000 | | | |
| 3. Agricultural and industrial assistance | 5,009,424 | 5,490,400 | 6,313,500 | 823,100 | 84,100 | 739,000 |
| 4. Soil and moisture conservation | 5,722,676 | 5,917,600 | 5,408,000 | −509,600 | 90,400 | −600,000 |
| 5. Maintenance of roads | 2,849,872 | 3,134,800 | 3,595,600 | 460,800 | 10,800 | 450,000 |
| 6. Development of Indian arts and crafts | 293,153 | 312,700 | 318,000 | 5,300 | 5,300 | |
| 7. Management of Indian trust property | 5,290,523 | 5,913,600 | 6,468,000 | 554,400 | 99,400 | 455,000 |
| 8. Repair and maintenance of buildings and utilities | 9,525,317 | 10,642,700 | 12,246,700 | 1,604,000 | 54,000 | 1,550,000 |
| 9. Operation, repair, and maintenance of Indian irrigation systems | 1,152,547 | 1,318,400 | 1,314,000 | −4,400 | 4,600 | −9,000 |
| Unobligated balance lapsing | 735,868 | | | | | |
| Total | 35,533,260 | 37,673,300 | 40,728,000 | 3,054,700 | 418,700 | 2,636,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*1. Forest and range lands—Analysis by subactivities*

| Subactivity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Forestry | $2,761,310 | $3,155,100 | $3,252,300 | $97,200 | $46,200 | $51,000 |
| (b) Range lands | 1,588,135 | 1,648,000 | 1,671,900 | 23,900 | 23,900 | |
| Total | 4,349,445 | 4,803,100 | 4,924,200 | 121,100 | 70,100 | 51,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

(a) *Forestry*

The estimate for 1965 is $3,252,300, an increase of $97,200 over 1964. The increase includes $46,200 for increased pay costs, and a program increase of $51,000 which is distributed to forestry program features as follows:

| Activity | 1964 program | 1965 program | Increase |
|---|---|---|---|
| Forest management | $1,212,100 | $1,212,100 | |
| Timber sales | 1,943,000 | 1,994,000 | $51,000 |
| Total | 3,155,100 | 3,206,100 | 51,000 |

*Need for increase.*—Timber sales: The increase of $51,000 will permit an estimated increase of 16 million board feet in the volume of timber to be cut under contract during the year, and will increase the estimated receipts from timber sales by about $200,000.

*Plan for work.*—The objectives of the timber management program are: (1) Development of the full timber growing potential of the Indian-owned forest lands; (2) protection of the growing stock from destructive agencies, primarily fire, insects, windthrow, and trespass; and (3) improvement of the economic status of the Indian owners, and communities on and near the reservations, through full use of the sustained yield allowable cut of all commercial forest products. It is a function of the branch of forestry to relate these objectives of

timber management to other uses of the forest under the multiple-use concept, such as grazing, recreation, and watershed protection.

*Importance to the Indian economy.*—At some reservations, receipts from timber sales are the principal source of income to the tribes. It is estimated that every million board feet of timber sold creates from 6 to 12 man-years of employment on or near the reservations in the logging operations and manufacture of lumber. This employment tends to decrease with the trend toward greater mechanization, but employment can be increased through the establishment of integrated wood product plants and remanufacturing facilities. One objective, therefore, is to plan the timber sales so as to encourage the establishment of fully integrated manufacturing facilities on the reservations.

(*b*) *Range lands*

The estimate for 1965 is $1,671,900, an increase of $23,900 over 1964. This increase is for pay increase costs.

*Plan of work.*—The range management program provides for proper conservation and use of 40 million acres of Indian grazing land; the development of management plans for the grazing land of each reservation; the development of range water supplies; the granting of grazing privileges looking toward the highest return consistent with undiminished future use; and the encouragement of Indian use of the Indian range resource.

Management plans provide for the division of the range into practical use units, determination of proper stocking and season of use, and for range improvement and betterment programs to obtain full use of the forage balanced with sustained production. Annual range condition and trend studies and utilization checks are made as the basis for adjustments in stocking rates, season of use, unit boundaries, and for the location of range water developments and other facilities. Provision is made for uniform distribution of livestock on the range to insure proper utilization and to prevent its destruction through localized overgrazing. Range water is increased through the development of deep wells, paved catchment basins and pipelines in the arid southwest in support of the range management program.

Most Indian reservations are located in principal watershed areas of the Western United States. Proper use of the Indian range is essential in the multiple-use concept of watersheds. Well-managed ranges provide excellent habitat for wildlife, encourage recreation development, and stabilize streamflows. In addition, a material contribution is made to a stabilized livestock industry by furnishing grazing for 467,297 cattle, 37,276 horses, and 711,605 sheep. Range inventories and other technical data indicate an average potential grazing capacity 50 percent greater than the current estimated capacity. This potential can be reached through an understanding and application of the basic principles of range management by the range users over a period of time, and after development of necessary physical range improvements.

Assistance is furnished to the Indian tribes in the allocation of grazing privileges to their members. Grazing privileges not needed for these allocations are advertised and permitted after competitive bidding.

*2. Fire suppression*

| Activity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| Fire suppression | $604,435 | $140,000 | $140,000 | ---------- | ---------- | ---------- |

*Plan of work.*—The estimate for 1965 is $140,000, the same as 1964. Funds under this activity, together with available tribal funds, are used to pay the cost of suppression and emergency prevention of fires on or threatening forest and range lands of Indian reservations.

*Status of program*

| | Calendar years | | | | | 5-year average |
|---|---|---|---|---|---|---|
| | 1958 | 1959 | 1960 | 1961 | 1962 | |
| Number of fires | 1,424 | 1,309 | 1,467 | 1,629 | 1,130 | 1,392 |
| Average acres per fire | 125 | 80 | 94 | 76 | 59 | 88 |
| Area burned (acres): | | | | | | |
| Timberlands | 12,995 | 22,401 | 25,577 | 15,379 | 23,952 | 20,061 |
| Brush and grasslands | 165,060 | 82,623 | 113,033 | 108,679 | 42,463 | 102,372 |
| Total area burned | 178,055 | 105,024 | 138,610 | 124,058 | 66,415 | 122,433 |
| Estimated damage | $364,276 | $2,172,803 | $552,325 | $1,179,050 | $329,451 | $919,581 |

A reasonable estimate of fiscal year 1965 costs for fire suppression is not possible. Such variable factors as weather conditions, tourism, and recreation, the effectiveness of previous hazard reduction programs, and the effectiveness of prevention, presuppression, and suppression programs, etc., have a marked effect on the number, location, and size of fires that occur and the eventual cost of suppression. Multiple use of the woods has increased tremendously in recent years and when coupled with the buildup of flash fuels the resultant risk of disaster fires is compounded.

[In percent]

| Causes of fires | Calendar years | | | | |
|---|---|---|---|---|---|
| | 1958 | 1959 | 1960 | 1961 | 1962 |
| (*a*) Man | 47 | 50 | 51 | 38 | 44 |
| (*b*) Lightning | 53 | 50 | 49 | 62 | 56 |

The obligations for each of the last 5 fiscal years were:

| | |
|---|---|
| 1959 | $520,306 |
| 1960 | 432,109 |
| 1961 | 1,221,228 |
| 1962 | 942,574 |
| 1963 | 604,435 |

In fiscal year 1959 there were several large fires on the Colville Reservation, Wash., and a large fire in California. During fiscal year 1960 there was one serious fire on the Klamath Reservation in Oregon accounting for about one-fifth of total expenditures. In fiscal year 1961, the high suppression costs were due largely to serious fires on the Flathead Reservation, Mont. Heavy obligations were incurred in fiscal year 1962 on the Crow and Umatilla Reservations in Montana and Oregon, and on southern California Indian lands. In fiscal year 1963, a large portion of the costs resulted from large and numerous timberland fires on the Colville Reservation, Wash.

*3. Agricultural and industrial assistance*

| Subactivity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (*a*) Agricultural extension | $1,368,090 | $1,399,700 | $1,479,700 | $80,000 | $10,000 | $70,000 |
| (*b*) Credit operations | 1,152,060 | 1,321,100 | 1,455,700 | 134,600 | 24,600 | 110,000 |
| (*c*) Economic development | 2,489,274 | 2,769,600 | 3,378,100 | 608,500 | 49,500 | 559,000 |
| Total | 5,009,424 | 5,490,400 | 6,313,500 | 823,100 | 84,100 | 739,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

(a) *Agricultural extension*

The estimate of $1,479,700 is an increase of $80,000 over 1964. The increase provides an additional $70,000 for program and $10,000 for increased pay costs.

*Need for increase.*—The increase of $70,000 will lead to economic betterment of the western Alaska Eskimos by a training program in the herding and management of reindeer and assistance in marketing reindeer products. The Nunivak Island reindeer herd has exceeded the carrying capacity of the island about 33 percent. The present deer population has been estimated at 16,000 head before this season's kill, and the overall capacity of Nunivak has been placed at 10,000 head.

For the past several years the project on Nunivak has been operated in a successful manner and it is proposed to conduct the same type of project on a reduced scale at various locations on the mainland.

It is proposed to develop this program in gradual stages wherein concentrated training programs will be carried out to teach management principles to the Eskimos in order that they might ultimately own or operate under corporate ownership the translocated reindeer herds.

*Plan of work.*—State extension contracts: The estimate of $769,100 will allow continuance of Johnson-O'Malley contracts with 15 State extension organizations of the land grant colleges. Extension agents counsel with individuals and families and also develop organized educational programs with Indians, through which they demonstrate and influence acceptable practices in all types of agriculture, home management, and youth training through 4–H Clubs. Approximately 90 professionally trained extension agents are employed by the 15 States in which special emphasis is given to including Indians in community, county, and statewide extension programs and services. The extension program is carried on through farm and home visitations, meetings, short courses, demonstrations, farm tours to show improved practices, bulletins, 4–H Clubs, achievement days, and exhibits.

The following table shows how the funds are programed to the States under contract:

| | Actual 1963 contract amount | 1964 contract amount | 1965 contract amount |
|---|---|---|---|
| Colorado | $18,100 | $19,100 | $19,100 |
| Florida | 24,200 | 24,200 | 24,200 |
| Idaho | 35,000 | 35,000 | 35,000 |
| Minnesota | 19,500 | 19,500 | 19,500 |
| Montana | 102,440 | 102,440 | 102,440 |
| Nevada | 46,885 | 46,885 | 46,885 |
| New Mexico | 71,350 | 69,950 | 69,950 |
| North Carolina | 18,780 | 19,200 | 19,200 |
| North Dakota | 50,000 | 50,000 | 50,000 |
| Oklahoma | 133,565 | 133,565 | 133,565 |
| Oregon | 23,960 | 23,960 | 23,960 |
| South Dakota | 127,000 | 127,000 | 127,000 |
| Utah | 18,300 | 18,300 | 18,300 |
| Washington | 54,000 | 54,000 | 54,000 |
| Wyoming | 26,000 | 26,000 | 26,000 |
| Total, State contracts | 769,080 | 769,100 | 769,100 |

*Noncontractual work.*—In the States of Alaska, Arizona, and Mississippi, extension personnel work directly with Indian people and help them to use the services of the county agents and the State extension service. Examples are joint demonstrations held by Bureau and State extension personnel on topics such as wool grading, livestock marketing, and livestock parasite control. Bureau extension personnel will plan continuation of educational assistance to Indian families in community improvement, home economics, management of farm and home enterprises, and training of youth through 4-H Club activities.

(b) *Credit operations*

The estimate of $1,455,700 is an increase of $134,600 over 1964. The increase includes $24,600 for increased pay costs and $110,000 for services required by the enlarged credit program.

*Need for increase.*—At June 30, 1963, $128,706,202 was involved in the program, of which private lenders supplied about 66 percent. Indian organizations supplied about 20 percent, and loans through the Bureau accounted for about 14 percent. The program is increasingly dependent upon lending from established private

sources and requires arrangements for private financing of Indian enterprises by investment firms, insurance companies and banks. The development of sound operating plans is necessary to maximize private financing. Qualified accounting and audits are needed. Credit investigations are required of firms and individuals with whom tribes may plan to operate enterprises jointly. These needs cannot be met by the present staff. An increase of 11 positions is requested.

*Plan of work.*—Financing is basic in the program for the development and utilization of Indian resources. Operations are patterned to meet the requirements of expanding Indian participation and self-reliance in business ventures. The objective is to utilize Indian resources and enterprises in a manner that will insure maximum Indian employment, income, and training, through management participation.

Activation of the Indian economic development program requires that financing be approached in many different ways. Every industrial, commercial, or business development requires planned financing, whether it is to be operated on an individual, tribal, or cooperative basis, or as a joint venture in association with non-Indian interests. Assistance is required: (1) To seek and obtain financing from private sources; (2) to determine the economic soundness of new ventures; (3) to insure the most businesslike operations, and (4) to minimize dependence upon Federal financing.

The Bureau's credit program requires Indians to exhaust all possible sources of private financing, and to utilize their own funds to finance developments, before loans by the United States are considered. This is in accordance with the recommendations in the "Report of the Committee on Federal Credit Programs" of February 11, 1963.

(c) *Economic development*

The estimate of $3,378,100 is an increase of $608,500 over 1964. The increase includes $49,500 for increased pay costs and $559,000 for program increases.

*Need for increase.*—The increase of $559,000 will provide industrial and technical assistance associated with the establishment and operation of industrial and commercial enterprises on Indian reservations; additional staff to handle the greatly increased workload because of increased claims awards and the need to identify and locate beneficiaries and develop claim rolls, and for basic information necessary to develop criteria for special legislation. There is also an increased need for thorough and extensive plans to be developed in consultation with tribes for the use of judgment funds arising from successful claims. The amount requested will also provide for the engineering and project supervision required in the planning, development and execution of the mutual aid housing program. Under this program, the family contributes its labor in the construction of the home, the Public Housing Administration provides funds for the materials and the minimum of essential skilled labor, and the Bureau provides organizing and supervision services, utilizing existing services in the Bureau for family selection, social welfare guidance, credit problems, and assistance and supervision during design and construction phases. The Housing and Home Finance Agency customarily relies upon local housing authorities for engineering services. Few tribal housing authorities are able to provide the same services as municipalities. Consequently, the Bureau must assist the tribal housing authorities to provide these services if they are to qualify for this program.

*Plan of Work.*—Initial stages in the development of economic growth includes the preparation of individual reservation-wide economic improvement programs. These programs are designed to inventory and evaluate the resources and assets of the reservation and to emphasize and familiarize the Indians with their resources, known needs, development potentials and barriers to development. The programs are to be enlarged and extended periodically to provide continuing guidelines and solution of all significant economic problems.

In scope, the initial programs include descriptions and interpretations of the reservation economies, physical resources, the bases for economic growth, problems, needed adjustments, analysis of labor force as to numbers, skills, training potentials and needs, and proposed projects.

The second stage in economic development is determination of the economic feasibilities of selected projects. Feasibility determination is based on financial analyses of costs, and returns, cost-benefit ratios, payout, sources of investment funds, operating capital and credit, adequacy of raw materials, transportation facilities and costs, markets and marketing, manpower requirements and availability, management and operating plans. Reports recommend specific actions to be taken in initiating development projects.

The final stage is the construction of the reservation-based projects and the beginning of operations. Project organization is designed to maximize the involvement of the Indians through employment, management, and financing. These projects provide for developing industrial and commercial enterprises of types most likely to furnish maximum permanent employment to Indians by utilizing their skills, and to make use of the natural resources owned by them or at their disposal. Projects cover primarily commercial and industrial enterprises, supporting facilities and services, and commercial and tourism improvements.

The Bureau of Indian Affairs is encouraging Indian groups to undertake the establishment of commercial, industrial, and tourism projects, and to seek out and negotiate with private corporations to establish plants on reservations. This is accomplished by location, design, and preparation of sites, construction of public facilities, location and measurement of raw materials, labor and management training, housing development, transportation, technical and engineering guidance, project promotion, organization, advertising and publication of brochures, and financial assistance.

The Bureau will continue to be responsible for assisting tribes with developing and amending constitutions and charters in order to enable them better to take advantage of programs of economic development and housing. Staff assistance is provided to the Department in interpreting the intent of constitution and charter provisions. The Bureau assists Indian tribes to develop their annual budgets, institute administrative procedures safeguarding the expenditure of funds and helps them develop "family plans" for the use of tribal funds, and processes ordinances and resolutions which require review or approval by the Commissioner or the Secretary.

The Bureau staff will continue to process contracts of claims attorneys; organize tribal meetings for the purpose of considering compromises in claims litigation; assist the Indian Claims Commission with auditing attorney expense vouchers; keep tribes informed as to the progress of their cases; undertake the research necessary to prepare legislation defining beneficiaries of claims awards; develop payment rolls, to assist tribes with planning for the use of their judgment funds, and to process the application of Indian tribes for loans with which to finance their litigation.

The self-help housing program has aroused great interest among the Indians. To improve Indian housing, full use will be made of existing staff at the reservation level. If loans for housing improvement are involved, credit officers will assist. Plant management personnel will be utilized during construction and inspection phases; social welfare, home demonstration, and education personnel will participate in orientation, family selection, and guidance in social and welfare problems.

Mutual help housing is a program designed to meet the housing needs of low-income Indian families on reservations. To meet the needs of these Indian families, the Housing and Home Finance Agency (under the United States Housing Act of 1937) provides financial aid for housing. The Bureau of Indian Affairs proposes to provide technical services and supervisory assistance. Through the establishment of local tribal housing authorities, Indian tribes are to provide the organization and mutual Indian help contributions. Under the program, individual Indian participants through their efforts can construct and own their own homes. An agreement between the HHFA and BIA was established on May 29, 1963, to define the extent of participation by both agencies.

*4. Soil and moisture conservation*

| Activity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Soil and moisture conservation | $5,722,676 | $5,917,600 | $5,408,000 | −$509,600 | $90,400 | −$600,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

The estimate for 1965 is $5,408,000, a decrease of $509,600 under 1964.

*Plan of work.*—The soil and moisture conservation technicians work directly with Indian people in an effort to teach them the advantages of conserving their soil, forage, and water resources. This close working relationship makes it possible to do a better job of planning for the use and development of these

resources. A high percentage of these technicians are members of the local tribe who understand local customs and the need for conservation. These persons are a part of work units which are located away from agency and area headquarters, so that they are accessible to the Indian, the lessee, and close to the land with which they are concerned. These technicians have the closest possible direct contact with Indians in the area they serve. Conservation measures are designed to fit each set of soil, slope, and erosion condition and are needed to (1) correct ravages of erosion and depletion; (2) protect still productive land against erosion and depletion; and (3) improve productive and resulting economic gains from all Indian lands.

The estimate of $5,408,000 will provide funds for the following major program features:

| | |
|---|---|
| 1. Land use investigations and planning | $1,600,000 |
| 2. Application of measures | 2,908,000 |
| (a) Soil stabilization and improvement | 1,400,000 |
| (b) Water management | 1,508,000 |
| 3. Operation and maintenance | 900,000 |
| Total | 5,408,000 |

During 1965, the program will continue to provide farm, ranch, watershed, and reservation plans for the utilization and development of soil, water, and forage resources. These plans will be based on information provided by soil and range inventories being made as a part of this program.

Emphasis will be placed on continuing the close working relationship with Indian people with specific guidance toward increasing the productive capacity of Indian resources and greater Indian participation in the watershed protection and flood prevention program as authorized by Public Law 566, 83d Congress (68 Stat. 666). The value of many Indian farms can be increased by being included in these projects.

The operation and maintenance program will provide for compliance checks to assure continued application of planned conservation measures resulting from the expenditure of soil and moisture conservation funds. Each year the cost of operation and maintenance increases because there are more applied practices to maintain.

*5. Maintenance of roads*

| Activity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Maintenance of roads | $2,849,872 | $3,134,800 | $3,595,600 | $460,800 | $10,800 | $450,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

The estimate for 1965 is $3,595,600, an increase of $460,800 over 1964. The increase includes $10,800 for increased pay costs and $450,000 for increased regular maintenance on schoolbus routes.

*Need for increase.*—The program increase of $450,000 will provide regular maintenance on 1,265 additional miles of schoolbus routes that had previously received only occasional maintenance and also provide occasional maintenance on 1,177 miles of reservation roads and trails serving Indian land which had previously received no road maintenance.

An additional load has been placed upon the programs by the exceptionally large school construction program and education's goal of full school attendance, including the semi-isolated areas. This means increased road maintenance on the access roads and the schoolbus routes over which the schools must transport supplies, personnel, and schoolchildren. Dependable transportation over reservation roads is essential to the maximum utilization of school facilities To contribute to the success of the educational program, road maintenance must, therefore, be increased to adequately serve the new schools and also the existing schools. Experience has shown that schoolbus routes require regular and complete maintenance for continued mechanical operation of the buses, to remove road hazards and also assure good daily school attendance.

If regular attendance and efficient operation of the school system are to be maintained, a better and expanded program must be carried out. Many miles of roads necessary to the school system alone are hazardous for schoolbus operation and are frequently impassable, making attendance and the servicing of schools irregular and difficult. This inadequacy is having a harmful effect on economic as well as educational programs, quite aside from the serious safety factors involved.

Plan of work: An area budget classification breakdown of the plan of work for 1965 follows:

| Area | 1965 estimate | Miles of heavy traffic | Amount of regular maintenance | Miles of light traffic | Occasional maintenance | Amount of heavy maintenance | Amount of special maintenance | Amount of airstrip maintenance |
|---|---|---|---|---|---|---|---|---|
| Aberdeen | $550,000 | 1,420 | $457,000 | 578 | $58,000 | $20,000 | $15,000 | ---------- |
| Anadarko | 110,000 | 112 | 36,000 | 404 | 54,000 | 10,000 | 10,000 | ---------- |
| Billings | 395,000 | 666 | 240,100 | 1,123 | 114,400 | 20,500 | 20,000 | ---------- |
| Gallup | 950,000 | 3,412 | 760,800 | 1,646 | 126,350 | 23,600 | 20,000 | $19,250 |
| Minneapolis | 200,000 | 334 | 147,200 | 230 | 25,200 | 17,600 | 10,000 | ---------- |
| Muskogee | 100,000 | 310 | 80,000 | ---------- | ---------- | 10,000 | 10,000 | ---------- |
| Phoenix | 590,000 | 1,651 | 392,000 | 2,033 | 148,000 | 30,000 | 19,000 | 1,000 |
| Portland | 460,000 | 911 | 314,000 | 1,649 | 126,000 | 10,000 | 10,000 | ---------- |
| Sacramento | 118,000 | 173 | 74,000 | 155 | 18,000 | 16,000 | 10,000 | ---------- |
| Washington | 122,600 | 73 | 53,000 | 78 | 27,000 | 35,200 | 7,400 | ---------- |
| Total | 3,595,600 | 9,062 | 2,554,100 | 7,896 | 696,950 | 192,900 | 131,400 | 20,250 |

(*a*) Regular maintenance: 9,062 miles of heavy traffic roads, $2,554,100; this sum provides for surface repair, blading, snow removal, ditch cleaning; removing rock, trees, weeds, and maintaining bridges and culverts. Average cost of $282 per mile.

(*b*) Occasional maintenance: 7,896 miles of light traffic roads, $696,950; this sum provides for work required to keep secondary roads and trails open to travel, such as blading, removing slides, filling washouts, removing trees, and occasional shaping. Average cost of $88 per mile.

(*c*) Heavy maintenance (major restoration): $192,900; this sum provides for reshaping roadbed, spot resurfacing, and major repairs to bridges and culverts.

(*d*) Special maintenance: $131,400; this sum provides for the repair of major damage caused by storms, fires, floods, etc.

(*e*) Flight strip maintenance: $20,250; this sum provides for surface blading of 20 flight strips which have been constructed in areas for emergency air transportation.

*6. Development of Indian arts and crafts*

| Activity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Development of Indian arts and crafts | $293,153 | $312,700 | $318,000 | $5,300 | $5,300 | ---------- |

[1] To provide for increased pay costs for fiscal year 1964 positions.

The estimate of $318,000 is an increase of $5,300 over 1964. This increase is for increased pay costs.

*Plan of work.*—The program of the Indian Arts and Crafts Board stimulates, encourages, and promotes the development of the widely recognized skills of Indian artists and craftsmen, not only to preserve a valuable American heritage, but to make this activity a larger factor in the self-support and economic development of the Indian people.

Arts and crafts specialists are located in strategic areas throughout the United States. They work with individuals and groups in developing high standards of workmanship, developing new ideas which have good market potential, assisting in the development of production-marketing centers, and preparing exhibits to stimulate public interest in Indian craftsmanship. In addition, two museums and craft centers are under the jurisdiction of the Indian Arts and Crafts Board, the Southern Plains Museum and Craft Center, Anadarko, Okla., and the Sioux

Indian Museum and Craft Center, Rapid City, S. Dak. These museums have developed an international reputation and are in the unique position of reaching a public interested in not only the finest of contemporary Indian arts and crafts, but also in the so-called souvenir items which can be mass produced.

Several workshop programs for Indian craftspeople have been held within the past year and these have proven to be so successful that it is planned to expand the program and conduct workshops in more areas.

*7. Management of Indian trust property*

| Subactivity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Land management | $4,282,875 | $4,779,500 | $5,261,400 | $481,900 | $84,900 | $397,000 |
| (b) General trust service | 989,197 | 1,054,100 | 1,068,600 | 14,500 | 14,500 | ---------- |
| (c) Employee compensation payments | 18,451 | 80,000 | 138,000 | 58,000 | ---------- | 58,000 |
| Total | 5,290,523 | 5,913,600 | 6,468,000 | 554,400 | 99,400 | 455,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*(a) Land management*

The estimate of $5,261,400 is an increase of $481,900 over 1964. The increase includes $397,000 for program and $84,900 for increased pay costs.

1. Real property management: The estimate of $4,022,400 is an increase of $414,400 over 1964. The increase includes $352,000 for program increases and $62,400 for increased pay costs.

*Need for increase.*—There were 50,483,517 acres of Indian-owned land (plus 4,712,749 acres of federally owned land) under Bureau jurisdiction at the end of fiscal year 1963. During the year Bureau staff processed nearly 40,000 real estate actions and additionally some 52,500 items of clerical work associated with the determination of the heirs of deceased Indians. These statistics do not reflect the total workload of this activity which is now being called upon increasingly to supply technical real estate advice and assistance to other growing resource development programs of the Bureau (housing, credit, industrial development, and others).

Because the basic wealth of the Indian people is in their land, sound and effective real estate management practices are fundamental to the success of all our resources based programs. Our experience demonstrates that significant economic gains may be brought about through the introduction of industry and other income producing activity on and near the reservations. Indian trust lands extend across some of the most attractive areas of the United States, yet, to a large extent, they include relatively undeveloped areas, and their potential is far from maximum realization. Together with the Indian people, therefore, we are engaged as a Bureau, in a major developmental effort to improve economic conditions in their reservations and communities. The requested increase will be utilized in the development of the more effective real property management services required to meet the rapidly expanding demands of trusteeship for the Indian land estate.

*Plan of work.*—To the extent possible with available resources, the Bureau will continue to meet the needs of individual Indians and Indian tribes as landowners for requested real estate transactions, such as, surface and subsurface leases, acquisitions, exchanges, partitions, sales, and consolidation of fractionated interests into less complex title patterns. In addition, the Bureau needs to take the initiative in planning jointly with the Indian people for the establishment of comprehensive, long-range plans for development of their real property resources. Land surveys are in some instances a prerequisite to such planning. On certain reservations (Navajo and Southern Ute for example), the public land surveys have not been completed. On these and other reservations boundary disputes have occurred. Where surveys have not been made or where survey markers have been lost, surveying work is required.

It is anticipated that the demands for Indian lands for all purposes (recreational, industrial, residential, commercial as well as farming and grazing) will continue to increase, and will result in an increased demand for specialized land use planning services not available from staff.

The decentralization of title plants from Washington to the area offices is a continuing program, but to meet the demand for early automation of title services there must be increased use of contract automatic data processing services.

2. Real estate appraisal: The estimate of $1,239,000 is an increase of $67,500 over 1964. The increase includes $45,000 for program increases and $22,500 for increased pay costs.

*Need for increase.*—The $45,000 program increase requested for 1965 will provide additional professional appraisal services where such services will render immediate economic benefits. Appraisal advice relating to the leasing of agriculture and grazing lands, residential, commercial and industrial sites, and mining and mineral interests will provide immediate and continuing monetary gains. Important advantages of a continuing nature can be gained through real estate economic analysis for land use planning.

*Plan of work.*—The appraisal branch supplies technical real estate evaluation services to assure that fair and reasonable value is realized in real estate transactions. These reports are valuable tools used in the preparation of sound and practical economic programs for Indian people. This requires a comprehensive economic analysis of the income potential of Indian property. The appraisal reports provide guidelines for management to achieve its objectives of conservation, highest and best use, and maximum income from the land. Long-term leasing authorities now provide for committing Indian lands to lease contracts which will carry into the next century. Fair rent in return for the use of Indian land is, therefore, of major significance in shaping the present and future economic status of the Indian people. The Bureau trustee responsibility encompasses approximately 52 million acres of trust land. Each of the 45,000 real estate transactions annually should be supported by appraisals. Immediate attention is necessary to obtain fair annual rental for approximately 41 million acres of range land used under the permit system.

(*b*) *General trustee services*

The estimate of $1,068,600 is an increase of $14,500 over 1964. This increase is for increased pay costs.

*Plan of work.*—The Bureau is charged by various laws and regulations with the trust responsibility of accounting for and disbursing individual Indian moneys which come into the custody of Bureau officials as a result of administering trust or restricted properties of individual Indians, through per capita payments, judgments, awards, and claims. Indian service special disbursing agents are designated to carry out these responsibilities.

In addition, trustee management is required for minors and those Indians who are unable to manage their affairs because of the lack of training in business affairs and the difficulties of communication due to inability to speak English. Such management includes the disbursement of funds under a planned program for the care of minors, with portions set aside for investment purposes for future use.

This subactivity also finances positions of field representatives who serve as contact representatives with the Indians at the reservation level and who perform work connected with the activities concerned with administration of trust properties.

The realty, forestry, irrigation, credit, welfare, and other activities of the Bureau and the Geological Survey and the Bureau of Land Management are directly affected by the management and operation of Indian money banks.

(*c*) *Employee compensation payments*

The estimate for 1965 is $138,000, an increase of $58,000 over 1964. The increase will provide funds to reimburse the employees' compensation fund for payments made on account of the injury or death of employees under the jurisdiction of this agency as required in section 209 of Public Law 86–767.

*8. Repair and maintenance of buildings and utilities*

| Activity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Repair and maintenance of buildings and utilities | $9,525,317 | $10,642,700 | $12,246,700 | $1,604,000 | $54,000 | $1,550,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*Need for increase.*—The program increase of $1,550,000 is required to fund the repair and maintenance of buildings and utilities available for use in fiscal year 1965 for which funds have not been previously appropriated. Accomplishments of the construction program in 1963–64 will result in a net increase of the Bureau's plant facilities amounting to approximately 2,620,000 square feet of buildings and 970 individual utility systems. Most of the Bureau's plants and facilities are located in the arctic and desert regions and must be maintained in continuous operation under difficult conditions.

*Plan of work.*—The repair and maintenance of buildings and utilities is a continuing program. Funds requested are used to provide normal maintenance and repairs to Bureau physical plant facilities located throughout the conterminous United States and Alaska. These facilities include 10,355 individual buildings having a total floor area of 31,700,000 square feet and approximately 10,190 separate utility systems. These include (1) 506 water systems comprising 540 storage tanks having a capacity of over 11,800,000 gallons, 490 wells with pneumatic systems, chlorinators, filters, clarifiers, water softeners, sump and settling tanks, sprinkler irrigation systems, fire hydrants and mains, and more than 4,290,000 lineal feet of water distribution systems; (2) 510 sewage systems comprising 505 septic and Imhoff tanks having a capacity of 3½ million gallons; 452 individual sewage ponds and disposal fields with a capacity of 400 million gallons, storm sewers, filter beds, lift stations, sumps and pumps, cesspools and 1,790,000 lineal feet of sewer systems, 90,000 plumbing fixtures including water closets, urinals, tubs, lavatories, sinks, fountains, etc.; (3) 2,975 fuel systems comprising 1,310 liquefied petroleum gas systems, with a capacity of 800,000 gallons and 570,000 lineal feet of distribution lines; approximately 1,800 oil storage tanks with a capacity of 3,400,000 gallons and 68,000 lineal feet of distribution lines; 250 coal storage bunkers with a capacity of over 150,000 tons; (4) 386 electric systems with 515 electric generators (diesel, gas, steam) with a capacity of 21,000 kilowatt, distribution systems approximately 375 miles in length; (5) 290 communication systems, comprised of 18 telephone systems having 18 switchboards and 2,600 telephones and 3,000 miles of telephone lines and 272 radio systems with some 1,800 receiver/transmitters; (6) 3,389 heating systems, including 722 heating plants (oil fired, gas fired, high pressure) having a capacity of 40,000 horsepower; and some 2,540 individual low pressure heating systems; (7) miscellaneous systems including 250 "walk-in" refrigeration units—230,000 cubic feet capacity, 400 air-conditioning systems totaling 1,850-ton capacity; more than 400 individual locations having in excess of 50,000 acres of ground, 11,000 acres of lawns, 2 million lineal feet of sidewalks, curbs, and gutters, 3 million lineal feet of fencing and items such as garbage dumps, land fills, air compressors, gasoline storage tanks, railroad sidings, docks, windmills, fire lookout towers, etc.

Commercial facilities are not available to serve the Bureau's isolated locations, therefore complete services including heat, light, power, water, sewer, garbage, etc. required to operate schools, dormitories, kitchens, dining halls, quarters, office buildings, shops, garages, and other educational and recreational facilities, etc. must be operated and maintained by the Bureau.

Utilities maintained at most locations are equivalent to those of an average community and in many locations are much more extensive due to central plants which provide electrical power, hot water, steam, etc. In addition to normal operating requirements these systems must be maintained on an uninterrupted 24-hour basis to insure the health and safety of Indian school children and Bureau personnel. Occupancy of most Bureau facilities on a 24-hour basis places increased loads on plants which accelerates deterioration and requires more than the usual time and expenditures to keep Bureau buildings and utilities in operating condition.

*9. Operation, repair, and maintenance of Indian irrigation systems*

| Activity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Operation, repair, and maintenance of Indian irrigation systems | $1,152,547 | $1,318,400 | $1,314,000 | −$4,400 | $4,600 | −$9,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

The estimate of $1,314,000 is a net decrease of $4,400 under the amount made available for this activity in 1964. The decrease includes an increase of $4,600 for pay cost and a program decrease of $9,000.

The total request is to cover annual operation and maintenance charges assessed against Indian-owned lands included within various private and public irrigation districts and water user associations, annual contract payments authorized by the Congress; and annual operation and maintenance costs for those projects not included within private or public irrigation districts and water user associations.

There are approximately 300 irrigation systems on various Indian reservations west of the Mississippi River, ranging in size from tracts of a few acres such as subsistence garden tracts to major projects of over 100,000 acres.

All collections are deposited in the operation and maintenance receipt account and are available for operating and maintaining the respective projects pursuant to the provisions of the act of August 7, 1946 (60 Stat. 895). These collections include payments by Indian and non-Indian water users and payments made on behalf of Indian water users who are financially unable to pay their assessment for current annual operation and maintenance. Collections from Indian water users for prior year assessments which have previously been paid from reimbursable appropriated funds are deposited directly into the Treasury to the miscellaneous receipt account as a repayment of reimbursable indebtedness. Where non-Indians receive water services from Indian irrigation systems they are required to pay the full per acre cost. The above referred to irrigation systems and projects fall in the following categories:

1. Projects which are economically feasible on the basis that there is a sufficient quantity of water to supply the assessable area. The lands have characteristics which will produce crops under sustained irrigation and have repayment capabilities which will permit landowners and water users as a whole to pay the full annual cost of operating and maintaining the system. The assessment rates on these projects are fixed to return the full operation and maintenance cost. Any unpaid assessment becomes a lien against the land for which the assessment is not paid.

Funds requested for payment of assessments under this category will be used when necessary to pay into the collection account that part of the uncollectible current annual per acre assessment against Indian-owned lands. Funds so paid into the collection account to cover such unpaid assessments become reimbursable debts due the United States.

2. Projects where the repayment capabilities of the land will not permit payment to the full annual operation and maintenance costs. Assessment rates for Indian water users on these projects are based on the ability of the Indian to pay and therefore do not cover the full cost of operation and maintenance. All or any portion of any unpaid assessment becomes a lien against the land for which such assessment is not paid.

Funds requested for payment of costs under this category will be used when necessary to pay into the collection account that part of the annual operation and maintenance cost on Indian-owned lands in excess of the annual assessment and any part of the uncollectible annual per acre assessment against Indian-owned lands. Funds so paid into the collection account to cover these costs become reimbursable debts due the United States when used to pay all or any part of the annual costs included in the assessment rate. Costs in excess of the assessment rate are nonreimbursable.

3. Irrigated areas, such as subsistence garden tracts and tracts of a few acres which do not represent economical units but do provide Indian landowners with a means of supplementing their livelihood. Because of the low income of the Indian landowners and water users on these irrigated areas and tracts, it is not feasible from an economic standpoint to assess these lands. Accordingly the operation and maintenance costs are nonreimbursable and do not become a lien against the lands benefited.

Funds requested for payment of costs under this category will be used when necessary to pay into the collection account the total cost for operation and maintenance of these subsistence garden tracts and irrigated areas, or if no collection account has been established and it is not desirable or proper to establish such an account, the funds will be expended when necessary directly from the appropriation account.

4. Irrigation systems and reservoirs serving Indian-owned lands located within and operated by various private and public irrigation districts and water user associations. Assessments for operation and maintenance of the irrigation systems

and reservoirs serving these Indian-owned lands are made by the irrigation district or water users association embracing and serving such Indian-owned lands.

Funds requested for payment of assessments under this category will be used when necessary to pay into the collection account for payment to private and public irrigation districts and water users associations for operation and maintenance costs assessed for Indian-owned lands included within such irrigation districts and water users associations. Funds used for payment of assessments covering these costs are reimbursable and become debts due the United States except for those payments that are nonreimbursable by legislation.

5. Projects that are operated by this Bureau at no cost to the Indian landowners and water users as provided for under legislation.

Funds requested for payment of assessments under this category will be used when necessary to pay into the collection account appropriated funds for irrigation projects operated by this Bureau at no cost to the Indian water users as required by legislation.

*Summary by subactivity*

| Subactivity | Appropriated, 1963 | Appropriated, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| (*a*) Annual assessment payment | $113,262 | $125,189 | $128,420 | +$3,231 |
| (*b*) Annual water payments | 40,000 | 40,000 | 40,000 | |
| (*c*) Operation and maintenance of irrigation systems | 1,094,464 | 1,153,211 | 1,145,580 | −7,631 |
| Total | 1,247,726 | 1,318,400 | 1,314,000 | −4,400 |

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $34,797,392 | $37,673,300 | $40,728,000 | $3,054,700 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration (75 Stat. 353) | 56,740 | 18,000 | | −18,000 |
| Comparative transfer to other accounts | 92,556 | | | |
| Unobligated balance lapsing | 643,312 | | | |
| Appropriation | 35,590,000 | 37,691,300 | 40,728,000 | 3,036,700 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 20,886,340 | 23,950,000 | 25,010,600 | 1,060,600 |
| 12 Personnel benefits | 1,521,039 | 1,802,000 | 1,953,600 | 151,600 |
| 21 Travel and transportation of persons | 1,332,968 | 1,391,000 | 1,506,500 | 115,500 |
| 22 Transportation of things | 360,200 | 363,000 | 386,000 | 23,000 |
| 23 Rents, communications, and utilities | 784,092 | 781,000 | 807,500 | 26,500 |
| 24 Printing and reproduction | 79,588 | 80,000 | 83,000 | 3,000 |
| 25 Other services | 2,747,364 | 2,660,000 | 3,515,400 | 855,400 |
| Services performed by other agencies | 155,903 | 220,000 | 220,000 | |
| 26 Supplies and materials | 4,022,942 | 4,164,000 | 4,568,000 | 404,000 |
| 31 Equipment | 1,867,118 | 1,257,000 | 1,676,500 | 419,500 |
| 32 Lands and structures | 167,398 | 140,000 | 140,000 | |
| 33 Investments and loans | 190,969 | 214,000 | 209,600 | −4,400 |
| 41 Grants, subsidies, and contributions | 1,142,660 | 1,166,000 | 1,166,000 | |
| 42 Insurance claims and indemnities | 19,361 | 3,300 | 3,300 | |
| 43 Interest and dividends | 831 | | | |
| Subtotal | 35,278,773 | 38,191,300 | 41,246,000 | 3,054,700 |
| Deduct quarters and subsistence charges | 481,381 | 518,000 | 518,000 | |
| Total obligations | 34,797,392 | 37,673,300 | 40,728,000 | 3,054,700 |

## Forest Management

Chairman Hayden. Would you please comment on the forestry program, indicating how much of the forest management expenditures are returned from the timber sale receipts?

Mr. Nash. Yes, sir. We returned about 10 percent to the miscellaneous receipts of the Treasury. There is a substantial portion

of the cost of the forestry program that is funded by this means, but it is not 100 percent.

Chairman HAYDEN. How much is contributed by the various Indian tribes to the overall forest management costs?

OVERALL COST

Mr. NASH. By and large, the overall cost of the forest management program is paid for by the 10 percent deduction.

Mr. Kephart, what are the contributions of the tribes in addition to that?

Mr. KEPHART. The tribes are now contributing about $400,000 a year to the forestry program.

Chairman HAYDEN. Out of tribal funds?

Mr. NASH. Yes, sir; out of tribal funds.

FIRE SUPPRESSION

Chairman HAYDEN. How much is your 1964 fire suppression cost going to run?

Mr. NASH. Our 1964 fire-suppression costs will be a little under $900,000, $889,611. We, of course, have our regular $140,000 item, and we are asking for $500,000 supplemental. We anticipate the second 6-month cost at about $175,000 so we will have to absorb about $250,000 of the fire-suppression costs.

CREDIT OPERATIONS

Chairman HAYDEN. With regard to credit operations, I notice that you are requesting 11 more positions. Would you please comment on the need for these?

Mr. NASH. Yes, sir. With these 11 positions we will be able to increase the amount of financing that the tribes will get from commercial lenders. There was a time when the only source of credit that was available to Indian tribes and individuals was the revolving program; Federal moneys. There has been a marked change in this in the past few years.

The Bureau of Indian Affairs is now the smallest source of Indian credit. Next are the tribes themselves. But nearly two-thirds of the outstanding credit to Indian tribes and individuals comes from commercial lenders.

Now, the need for these 11 people is to increase the amount of borrowing that is available from these standard sources. Credit, of course, is necessary to economic development. The law permits loans of this kind, but many bankers are either not aware of it, or they are apprehensive about making it.

Chairman HAYDEN. Is this lending confined to bankers?

Mr. NASH. No, it is all sources; investment firms, savings and loans, and so on. But these 11 people are to be the go-betweens between the tribes and individuals and regular private lenders.

ECONOMIC DEVELOPMENT

Chairman HAYDEN. You have requested $559,000 additional for your economic development activity. Would you please describe for

the committee the industrial and technical assistance to which this sum will be applied?

Mr. NASH. Yes, sir. In the field of economic development, we include four activities, all of which are very important to the present and future well-being of the tribes. For example, housing development is included in economic development. These 3,200 dwellings that the Public Housing Administration is providing will be handled by 58 tribal housing authorities. So the branch of housing development that helps the tribes set up these housing authorities in order to take advantage of the programs of the Public Housing Administration is one activity.

Under the mutual help program, we supervise construction and there are 25 positions provided for in the increase to help in the supervising of the construction of the self-help.

In the same way, our Office of Tribal Operations is working with the tribes to help plan the use of judgment funds. The number of awards by the Claims Commission is increasing and the dollar value is very great. And we have all sorts of enrollment problems and planning problems in connection with the disbursement of these funds so that they will not be dissipated, but will be for constructive tribal or individual purposes.

In the field of industrial development, our people in that branch have been enabled in the past 3 years to bring 25 new light manufacturing industries to the reservations which are right now providing 750 jobs for Indian people that were not there 3 years ago.

This increase will provide 15 people to be added to our industrial development branch.

Chairman HAYDEN. You think they earn their way?

Mr. NASH. Yes, sir.

### SOIL AND MOISTURE CONSERVATION

Chairman HAYDEN. Where do you propose to apply the $509,000 decrease in your soil and moisture conservation activity?

Mr. NASH. We will divide this between personal services and programing. There are about $300,000 that will be absorbed by the normal process of attrition between now and the beginning of the year. That would amount to about 40 positions. In addition to that, in the field of supplies and materials and contracts, we will pick up about another $200,000.

Chairman HAYDEN. I have been handed a number of questions regarding your soil and moisture conservation program. I will appreciate your providing answers for these questions which can be placed in the record.

Mr. NASH. We will do that, sir.

(The material referred to follows:)

### SOIL AND MOISTURE CONSERVATION

Question. Will the anticipated cut allow cooperating Indians to continue applying conservation measures at the same rate as in the past year?

Answer. The anticipated cut will not enable cooperating Indians to continue applying conservation measures to their lands at the same rate as they did during the past year because the reduced program will bring about a reduction in technical staff and funds available to match Indian funds which might be used for carrying out SMC practices. Both technical guidance and encouragement, and

matching funds are a necessary part of getting Indians to properly develop and use their soil and water resources.

Question. Will the budget estimate appropriations for soil and moisture conservation allow the Bureau of Indian Affairs to participate in watershed protection and flood prevention projects (Public Law 566)?

Answer. The reduced SMC budget would not enable the Bureau to participate in the small watershed program (Public Law 566) because participation by the Bureau in the past in these small watershed projects has been limited to application of practices at about the same rate as was being accomplished on lands outside of these special projects. The reduced program would not provide for accelerating the application of practices in presently approved projects or provide any funds for new projects which might be authorized.

Question. Will the budget estimate for fiscal year 1965 permit participation in the resource conservation and development projects (sec. 102, title 1, Food and Agriculture Act of 1961)?

Answer. The reduced SMC program would not enable the Bureau to participate in this type of project because we have not participated in this program in the past and participation at this time would cut into the reduced funds which are available for our going programs.

Question. Would the reduced SMC budget enable the Bureau to participate in development of resource conservation areas as proposed by the Department of the Interior and other resource improvement projects?

Answer. The reduced budget would not enable the Bureau to participate in development of new resource conservation areas or other resource improvement projects because the participation in additional projects of this type would seriously jeopardize the going program being carried out on Indian lands as a whole.

Question. How much additional money is necessary to allow the Bureau of Indian Affairs to do their part in these programs?

Answer. It is estimated that $1,500,000 of additional funds would be needed for fiscal year 1965 to enable the Bureau to participate in the above programs at the rate anticipated as being necessary for the Bureau to carry on the work on Indian lands at a rate comparable to that on non-Indian lands.

### Maintenance of Roads

Chairman Hayden. In your Maintenance of Roads item you indicate an increase of $450,000 to provide regular maintenance on schoolbus routes and occasional maintenance on other reservation roads. Would you please furnish for the committee the total amount which you propose to expend on the schoolbus routes?

Mr. Nash. Yes, sir. The estimated amount to be spent on the maintenance of roads carrying schoolbus traffic is $2,850,000. The $450,000 increase will enable us to provide major maintenance on 1,265 miles of schoolbus routes and to do occasional maintenance on 1,127 miles of trails that at present do not receive any maintenance.

### Repair and Maintenance of Buildings and Utilities

Chairman Hayden. I note about a 15-percent increase requested for repair and maintenance of buildings and utilities. Is there any particular condition which is causing this large increase?

Mr. Nash. Yes, sir. The principal cause of the large increase, Mr. Chairman, is our school building program, which is adding about 2½ million square feet of school space each year. In addition to that, there are 970 individual utility systems, that is, heating plants, water, sewerage, and electrical plants, and other utility systems which have to be maintained. That is the principal cause of this increase.

REVOLVING FUND FOR LOANS

Chairman HAYDEN. The old authorization for revolving fund for loans has been completely appropriated. However, last November, Congress enacted Public Law 168 authorizing the appropriation of $900,000 to establish another revolving fund from which the Secretary may make loans to finance procurement of expert assistance in cases before the Indian Claims Commission.

Congress is requested to appropriate this $900,000 as a supplement to the fiscal year 1964 appropriation. The justification will be printed in the record.

(The justification referred to follows:)

*Revolving fund for loans*

| | |
|---|---|
| Request (for availability until expended) | [1] $900, 000 |
| Appropriation to date | 2, 000, 000 |
| Obligations to Dec. 31, 1963 | 2, 939, 404 |
| Expenditures to Dec. 31, 1963 | 1, 874, 845 |
| Budget estimate next fiscal year | |

[1] This is the first time an appropriation has been requested for this purpose. The $2,000,000 appropriated in the Interior and Related Agencies Appropriation Act, 1964, was appropriated for loans to Indian tribes and individual Indians for economic improvement.

PURPOSE AND NEED FOR SUPPLEMENTAL FUNDS

These funds will be used for making loans to tribes for hiring expert assistance in connection with claims presented to the Indian Claims Commission as authorized by Public Law 88-168 approved November 4, 1963.

REVOLVING FUND FOR LOANS

JUSTIFICATION

The $900,000 appropriation requested by this estimate is urgently needed to make loans to needy tribes to finance the procurement of expert assistance in cases before the Indian Claims Commission. Services of experts are necessary for preparation and trial of the claims. Because of the high cost of expert services many tribes have not been able to bear the financial burden. The lack of expert services has caused delay in settling claims.

More than 850 claims were presented to the Commission on or before August 12, 1951, the deadline for filing such claims. Yet, only one-fourth has been finally determined. The pending claims are in about 600 dockets. Of these, about 150 have been finally determined; about 20 are on appeal to the Court of Claims; about 20 await only determination of gratuitous offsets; and about 400 are pending in early stages of prosecution. The funds requested are needed primarily to provide assistance in connection with reaching determinations on the 400 claims that are pending in early stages.

Most of these 400 dockets are based on taking of Indian lands and title has been found in 40 of them. The others are less advanced and are the ones in which historians, anthropologists, ethnologists, appraisers of land, timber, and minerals and similar experts are needed in order to get the claims moving and keep them under active prosecution through the valuation phase.

In the past, some experts were engaged by claims attorneys under contractual arrangements which provided for payment of compensation and expenses contingent upon recovery. The Indian Claims Commission has declared such contracts to be against public policy and void. The alternate is to engage experts under fixed fee contracts providing for payment for the services regardless of the outcome of the cases. The legislation authorizing the revolving fund provides that, after enactment, no contingent expert witness fee contract shall be approved.

Loans will be made to those tribes which do not have sufficient tribal funds available for engagement of expert assistance. Determination of the eligibility of a tribe will be made when processing the application for a loan.

In view of the many pending dockets, it is likely that $900,000 will be completely obligated in a short time. However, loans are to be reimbursed from awards granted in the respective tribal claims. It is estimated that loans will be outstanding for an average period of at least 5 years before being reimbursed. A minimum of 2 years usually passes after title is found in a case until the value of the land is determined. The case then continues until gratuitous offsets and other allowable reductions are determined. Also, decisions on liability and final determinations are subject to appeal within 3 calendar months. Several cases have been appealed to the Court of Claims which also needs time to make its review.

### Revolving Fund for Loans

*Program and financing*

[In thousands of dollars]

| | 1964 actual, presently available | 1964 estimate, revised estimate | 1964 estimate, increase (+) or decrease (−) |
|---|---|---|---|
| Program by activities: Capital outlay: Acquisition of loans (total costs, obligations) (object class 33) | 8,527 | 9,427 | +900 |
| Financing: | | | |
| New obligational authority (appropriation) | 2,000 | 2,900 | +900 |
| Revenues and other receipts: | | | |
| Collection of loans | 618 | 618 | ---------- |
| Revenue | 524 | 524 | ---------- |
| Total revenues and other receipts | 1,142 | 1,142 | ---------- |
| Unobligated balance brought forward | 5,549 | 5,549 | ---------- |
| Unobligated balance carried forward | −164 | −164 | ---------- |
| Financing applied to program | 8,527 | 9,427 | +900 |

*Summary of sources and application of funds*

[In thousands of dollars]

| | 1964 actual, presently available | 1964 estimate, revised estimate | 1964 estimate, increase (+) |
|---|---|---|---|
| Obligations (from program and financing): Gross expenditures | 8,527 | 9,427 | 900 |
| Revenue and other receipts (from program and financing): Applicable receipts | 1,142 | 1,142 | ---------- |
| Budget expenditures | 7,385 | 8,285 | 900 |

***Financial condition***

[In thousands of dollars]

| | 1964 actual, presently available | 1964 estimate, revised estimate | 1964 estimate, increase (+) or decrease (−) |
|---|---|---|---|
| Assets: | | | |
| Treasury balance | 164 | 164 | ---------- |
| Loans, receivable, net | 21,828 | 22,728 | +900 |
| Total assets | 21,992 | 22,892 | +900 |
| Government equity: | | | |
| Non-interest-bearing capital: | | | |
| Start of year | 24,573 | 24,573 | ---------- |
| Appropriation | 2,000 | 2,900 | +900 |
| End of year | 26,573 | 27,473 | +900 |
| Deficit | 4,581 | 4,581 | ---------- |
| Total Government equity | 21,992 | 22,892 | +900 |

*Analysis of Government equity*

[In thousands of dollars]

| | 1964 actual, presently available | 1964 estimate, revised estimate | 1964 estimate increase (+) or decrease (−) |
|---|---|---|---|
| Unobligated balance | 164 | 164 | |
| Invested capital and deficit | 21,828 | 22,728 | +900 |
| Total Government equity | 21,992 | 22,892 | +900 |

LOAN DISBURSEMENT

Chairman HAYDEN. Would you please explain the immediate need for this appropriation; and describe machinery which may have been established to disburse the loans?

Mr. NASH. Yes, Mr. Chairman, I will be glad to do that. May I also offer for the record a letter from the Chief Commissioner of the Indian Claims Commission, explaining the need for $900,000 and supporting the program. Our plans will be to handle this through our regular credit operation staff. We have some applications pending and we will treat these loans exactly as we treat any others, bearing in mind that the purpose for which they are appropriated was very specifically spelled out in the authorizing legislation.

(The letter referred to follows:)

INDIAN CLAIMS COMMISSION,
*Washington, D.C., January 13, 1964.*

Hon. STEWART L. UDALL,
*Secretary, Department of Interior,*
*Washington, D.C.*

DEAR MR. SECRETARY: I want to express my appreciation for your very friendly cooperation in getting before the Congress a request for funds to implement the act authorizing a revolving fund to be loaned to impecunious Indian litigants for the preparation and presentation of their cases.

We are seriously handicapped now in processing these claims by the fact that the Indians are not prepared for trial, largely because they do not have funds with which to employ expert witnesses to do research for them and to present expert evidence to the Commission in support of their claims.

Your request for this appropriation will go a long way in securing an appropriation at an early date. Our information is that there will be no request in the regular budget for fiscal 1965, so if any money is appropriated it will have to be done through a supplemental request for this fund.

We have learned through Indian sources that there probably will be more requests for loans than the total amount authorized by the Congress. These applications are all ready to be filed as soon as there is hope of having the money available.

Again, many thanks.

Sincerely,

ARTHUR V. WATKINS, *Chief Commissioner.*

CONSTRUCTION

Chairman HAYDEN. There will be placed in the record the justification for the budget estimate for "Construction" which amounts to $51,176,000, a decrease of $7,124,000 from the amount appropriated in fiscal year 1964.

(The justification referred to follows:)

*Construction*

| | | |
|---|---|---|
| Appropriation 1964 | | $58,300,000 |
| Transferred to General Services Administration (75 Stat. 353 and 76 Stat. 728) | | −62,257 |
| Appropriation (adjusted) | | 58,237,743 |
| Unobligated balance from prior years | | 1,232,068 |
| Total available for obligation | | 59,469,811 |
| Decreases: | | |
| Buildings and utilities | $53,096,936 | |
| Irrigation systems | 6,360,822 | |
| Land acquisition | 12,053 | 59,469,811 |
| Subtotal | | |
| Increases: | | |
| Buildings and utilities | $42,776,000 | |
| Irrigation systems | 8,400,000 | 51,176,000 |
| Budget estimate, 1965 | | 51,176,000 |

***Analysis by activities***

| Activity | Amount available, 1964 | Fiscal year 1965 | | | Total available 1965 compared to total available 1964 |
|---|---|---|---|---|---|
| | | Unobligated balance from prior year | Budget estimate | Estimated total available | |
| 1. Buildings and utilities | $53,096,936 | | $42,776,000 | $42,776,000 | −$10,320,936 |
| 2. Irrigation systems | 6,360,822 | | 8,400,000 | 8,400,000 | +2,039,178 |
| 3. Land acquisition | 12,053 | | | | −12,053 |
| Total | 59,469,811 | | 51,176,000 | 51,176,000 | −8,293,811 |

CONSTRUCTION OF FACILITIES

*1. Buildings and utilities, $42,776,000*

This estimate places emphasis on the replacement, expansion, and improvement of obsolete school facilities, relief of some overcrowding and for an increasing school population. The Bureau also is facing the need to provide facilities for high school students in rapidly increasing numbers.

Considerable progress has been made in recent years in the school facility construction program to provide facilities for the increasing school populations. This is a continuing need and future budgets must provide for the annual increase in school populations. Planning for the replacement of obsolete facilities must include the expansion necessary to provide space for increasing populations related to the geographic location to be served by each school. It also must include a 5-year growth factor in relationship to each project where the known preschool population indicates growth.

The Bureau is cooperating with State and local agencies to provide school facilities for Indian children. Where it is in the best interest of the Indian children, they are placed in public schools. Where public schools are not available, the Bureau must continue to provide facilities. The State of Alaska is developing with the Bureau of Indian Affairs, a joint policy for education of all Alaska children. This will require the construction of facilities in the native villages by the Bureau. These facilities will eventually be turned over to the State for operation.

In addition to the need for school facilities, this estimate includes funds for the construction of employee housing, for urgently needed water and sanitary sewer facilities, and for some jail facilities. It also includes funds for advanced planning of future projects. The appropriation of funds for advanced planning of new projects has enabled the Bureau to step up the construction program. This has resulted in getting more children into school and some relief of overcrowding, and replacement of obsolete facilities. A list of projects in this estimate and their justifications follow:

BUILDINGS AND UTILITIES CONSTRUCTION PROGRAM, FISCAL YEAR 1965

*Summary of projects by State —New construction*

| | *Estimated cost* |
|---|---|
| Alaska: | |
| Barrow kitchen multipurpose building | $725,000 |
| Goodnews Bay Day School | 319,000 |
| Koliganek Day School | 358,000 |
| Koyuk Day School | 354,000 |
| Mekoryuk Day School | 552,000 |
| Mountain Village Day School | 300,000 |
| Nome School facilities | 2,921,000 |
| Tuluksak Day School | 361,000 |
| Total, Alaska | 5,890,000 |
| Arizona: | |
| Phoenix Indian School dormitories | 1,122,000 |
| Beshbito Boarding School | 6,665,000 |
| Red Rock Boarding School | 2,202,000 |
| Rough Rock Boarding School | 2,645,000 |
| Total, Arizona | 12,634,000 |
| California: Sherman Institute dormitories | 3,700,000 |
| Kansas: Haskell Institute vocational shops | 798,000 |
| Montana: Fort Belknap Agency water | 50,000 |
| New Mexico: | |
| Huerfano Boarding School | 2,465,000 |
| Kimbeto Day School | 865,000 |
| Ojo Encino Day School | 520,000 |
| Sanostee Boarding School | 2,654,000 |
| Total, New Mexico | 6,504,000 |
| North Dakota: | |
| Turtle Mountain Agency, Fort Totten jail | 150,000 |
| Standing Rock Agency jail | 250,000 |
| Total, North Dakota | 400,000 |
| Oklahoma: | |
| Chilocco Indian School dormitories | 1,280,000 |
| Sequoyah School | 2,128,000 |
| Total, Oklahoma | 3,408,000 |
| Oregon: Tongue Point School | 2,042,000 |
| South Dakota: Rosebud Boarding School completion | 600,000 |
| Washington: | |
| Colville Agency water system | 64,000 |
| Colville jail, Wellpinit | 125,000 |
| Total, Washington | 189,000 |
| Wyoming: Wind River Agency sewer | 71,000 |
| Bureau-wide: | |
| Quarters, various | 700,000 |
| Water exploration and development | 390,000 |
| Advance plannings | 400,000 |
| Total, new construction | 37,776,000 |
| Major alterations and improvements | 5,000,000 |
| Grand total | 42,776,000 |

*2. Irrigation systems, $8,400,000*

This activity provides funds for the continuation of irrigation development work on existing and approved irrigation projects on Indian reservations located in the arid and semiarid West where the conservation and development of lands

and water for agricultural irrigation are of fundamental importance to enable the Indian to become self-supporting and to make proper use of his land and water resources. Funds are also provided for the newly authorized Navajo Indian irrigation project, located on the Navajo Indian Reservation in New Mexico. The development and extension of irrigation projects on Indian reservations are primarily for the benefit of resident reservation Indian families. The facilities, however, also directly benefit the surrounding community, as well as non-Indian owned lands included within the projects. Most Indian-owned land is devoted to growing supplemental feed for the 41 million acres of range lands. The success of stock raising is largely dependent on an adequate supply of winter feed which can be produced on irrigated land. The early completion of new and existing continuing projects will make possible the determination of final per acre construction costs for reimbursement purposes and will greatly facilitate the program and policy of the Bureau in transferring the responsibility for operation and maintenance of the systems to the water users.

The type of work proposed is the construction, extension, rehabilitation, and betterment of irrigation systems; land clearing and leveling; and surveys and investigations.

The major structures and canal systems are completed, or nearing completion, on many of the existing projects. The work now proposed on these projects will consist primarily of extending canals and laterals, land clearing and leveling, extension of drainage systems and the rehabilitation and betterment of existing irrigation projects.

The newly authorized Navajo Indian irrigation project embraces 110,630 acres of land. The complete development of this project includes additional studies, preparation of a definite plan report, and construction of canal, laterals, and structures.

There was initiated during the fiscal year 1961 a program for the preparation of rehabilitation and completion reports for all existing and authorized projects and feasibility reports for new and unauthorized projects. When completed these reports will provide a complete and up-to-date inventory of project acreages, irrigation facilities and needs and requirements for long-range planning. It is anticipated that the completion and rehabilitation reports will be completed by 1966.

## Irrigation Construction

*Summary of projects*

| | Total estimated cost | 1965 estimate |
|---|---|---|
| (a) Annual contract payments | $610,750 | $16,000 |
| Fort Belknap | 250,000 | 6,250 |
| Tongue River | 360,750 | 9,750 |
| (b) Irrigation construction | 243,715,053 | 6,691,537 |
| Arizona: | | |
| Colorado River: | | |
| Irrigation | 44,050,000 | 315,600 |
| Power | | 45,000 |
| San Carlos project: | | |
| Irrigation | 30,559,598 | 64,000 |
| Power | | 100,000 |
| California: Soboba | 178,165 | 164,000 |
| Idaho: Fort Hall project—Michaud division | 8,240,160 | 605,000 |
| Montana: | | |
| Crow | 1,081,536 | 63,713 |
| Fort Peck | 3,116,002 | 324,788 |
| Nevada: Duck Valley | 6,825,000 | 130,000 |
| New Mexico: | | |
| Hogback | 8,800,600 | 145,059 |
| Navajo project | 135,000,000 | 4,700,000 |
| Wyoming: Wind River | 5,863,992 | 34,377 |
| (c) Surveys, investigations, plans, and reports | | 180,000 |
| (d) Rehabilitation and betterment | 15,523,046 | 1,000,832 |
| Arizona: | | |
| Colorado River irrigation | 1,072,118 | 51,600 |
| San Carlos project—joint works: | | |
| Irrigation | 4,773,014 | 45,000 |
| Power | | 32,800 |
| Gila crossing | 474,383 | 16,000 |
| Maricopa colony | 165,964 | 16,000 |
| San Carlos Reservation | 907,300 | 63,000 |
| California: Pala | 121,800 | 20,000 |
| Colorado: Pine River | 830,239 | 200,800 |

*Summary of projects*—Continued

| | Total estimated cost | 1965 estimate |
|---|---|---|
| (*d*) Rehabilitation and betterment—Continued | | |
| Montana: | | |
| Blackfeet | $464,953 | $111,484 |
| Fort Belknap | 509,552 | 25,000 |
| Fort Peck | 517,926 | 43,120 |
| Nevada: | | |
| Fort McDermitt | 32,500 | 30,000 |
| Moapa | 18,000 | 9,900 |
| New Mexico: | | |
| Miscellaneous pueblos | 3,064,033 | 140,510 |
| Navajo (Fruitland and Hogback units) | 179,000 | 89,500 |
| Utah: Uintah | 144,197 | 50,000 |
| Wyoming: Wind River | 2,248,067 | 56,118 |
| (*e*) Engineering and supervision | | 511,631 |
| Total estimate | | 8,400,000 |

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $53,338,080 | $59,470,068 | $51,176,000 | −$8,294,068 |
| Transferred to "Operating expenses, Public Buildings Services," General Services Administration | 83,481 | 62,000 | | −62,000 |
| Unobligated balance brought forward | 878,629 | 1,232,068 | | +1,232,068 |
| Unobligated balance carried forward | 1,232,068 | | | |
| Appropriation | 53,775,000 | 58,300,000 | 51,176,000 | −7,124,000 |
| Obligation by objects: | | | | |
| 11 Personnel compensation | 6,430,696 | 7,353,726 | 7,415,726 | +62,000 |
| 12 Personnel benefits | 329,251 | 380,019 | 381,530 | +1,511 |
| 21 Travel and transportation of persons | 548,605 | 585,000 | 585,000 | |
| 22 Transportation of things | 539,039 | 540,418 | 550,000 | +9,582 |
| 23 Rent, communication, and utilities | 281,076 | 369,884 | 320,000 | −49,884 |
| 24 Printing and reproduction | 115,392 | 119,318 | 125,000 | +5,682 |
| 25 Other services | 2,429,257 | 2,349,227 | 2,000,000 | −349,227 |
| Services of other agencies | 174,245 | 165,370 | 151,000 | −14,370 |
| 26 Supplies and materials | 3,150,528 | 3,215,761 | 3,200,000 | −15,761 |
| 31 Equipment | 1,300,643 | 1,575,242 | 1,500,000 | −75,242 |
| 32 Lands and structures | 37,546,720 | 39,868,000 | 30,308,744 | −9,559,256 |
| 41 Grants, subsidies, and contributions | 12,000 | 1,039,068 | | −1,039,068 |
| 42 Insurance claims and indemnities | 3,123 | | | |
| Subtotal | 52,860,575 | 57,561,033 | 46,537,000 | −11,024,033 |
| Deduct quarters and subsistence charges | 58,489 | 57,520 | 61,000 | −3,480 |
| Total, Bureau of Indian Affairs | 52,802,086 | 57,503,513 | 46,476,000 | −11,027,513 |
| Allocation accounts: | | | | |
| 11 Personnel compensation | 110,525 | 646,202 | 810,204 | +164,002 |
| 12 Personnel benefits | 8,310 | 56,500 | 64,450 | +7,950 |
| 21 Travel and transportation of persons | 6,627 | 66,450 | 69,390 | +2,940 |
| 22 Transportation of things | 7,288 | 26,159 | 6,022 | −20,137 |
| 23 Rent, communications, and utilities | 1,581 | 21,761 | 17,162 | −4,599 |
| 24 Printing and reproduction | 1,427 | 4,100 | 5,484 | +1,384 |
| 25 Other services | 1,171 | 512,364 | 5,829 | −506,535 |
| Services of other agencies | 26,006 | 16,622 | 38,000 | +21,378 |
| 26 Supplies and materials | 10,896 | 22,874 | 28,536 | +5,662 |
| 31 Equipment | 42,118 | 68,100 | 12,800 | −55,300 |
| 32 Lands and structures | 319,975 | 525,335 | 3,642,000 | +3,116,665 |
| 42 Insurance claims and indemnities | 70 | 88 | 123 | +35 |
| Total, allocation accounts | 535,994 | 1,966,555 | 4,700,000 | +2,733,445 |
| Total obligations | 53,338,080 | 59,470,068 | 51,176,000 | −8,294,068 |
| Obligations are distributed as follows: | | | | |
| Bureau of Indian Affairs | 52,802,086 | 57,503,513 | 46,476,000 | −11,027,513 |
| Bureau of Reclamation | 190,013 | 1,882,305 | 4,700,000 | +2,817,695 |
| Geological Survey | 2,566 | | | |
| Corps of Engineers, Civil | 343,415 | 84,250 | | −84,250 |

CONVERSION OF TONGUE POINT NAVAL INSTALLATIONS

Chairman HAYDEN. The committee has before it a departmental letter which will be included in the record, requesting authorization to reprogram $2,921,000 for conversion of the Tongue Point naval installation in Oregon to a boarding high school for Indian children. This amount is needed for initiation of required renovation work.

(The letter referred to follows:)

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
*Washington, D.C., December 20, 1963.*

Hon. CARL HAYDEN,
*Committee on Appropriations,*
*U.S. Senate, Washington, D.C.*

DEAR SENATOR HAYDEN: In fiscal year 1964, the construction program approved by the Congress for the Bureau of Indian Affairs, amounted to an estimated $55,867,000; however, the appropriation bill provided $3,067,000 less than this amount, or $52,800,000 to accomplish the total construction program. In addition, several emergency situations and other considerations have developed during the past few months, making it necessary for the Bureau to adjust the project list previously submitted and approved by the Congress. The following narrative information and attached comparative report, which shows the program as approved by the Congress and the Bureau's revised programing, is submitted for committee approval.

Recently it became known to the Bureau that the facilities of the Tongue Point Naval Installation, Astoria, Oreg., could be made available to the Bureau. A team of Bureau educators and technical personnel conducted a survey of the facilities to determine the feasibility of converting the base to a boarding high school for Indian children. This survey indicated such a plan would be economically and functionally feasible. It is estimated that a savings of approximately $3 million in construction costs could be made over the construction of a completely new high school plant. The Bureau will convert the base into a 1,000-pupil school to meet the increasing need for high school facilities for Indian children from all areas. As phase 1 of the program, a new academic classroom building with an auditorium-gymnasium will be constructed, as well as a new girls' dormitory for approximately 250. Utilities will be renovated and extended to the new buildings. Funds amounting to $2,921,000 are being reprogramed for this work. Additional funds to complete the conversion of the plant, which will consist of remodeling and renovation of existing buildings and the purchase of furnishings and equipment, will be requested at the earliest possible date.

For some time the Bureau has been acutely aware of the need for improving the working and living conditions of employees stationed at the Bethel field office in Alaska. When the Air Force SAGE facility at Bethel became available, the Bureau determined the buildings could be converted to office and quarters use for approximately one-half the cost of new construction, and therefore acquired the plant. It is proposed in fiscal year 1964 to remodel a portion of the main building for some of the needed quarters, and in a future year, complete the conversion. Funds from the Bureau's appropriation for "Quarters, various," have been programed for this work.

In order to provide safe and sanitary school facilities for the children in Florida now attending an old dilapidated school at Big Cypress, and those children presently housed in a temporary portable wooden school on the Tamiami Trail, the Bureau plans to construct at each location, a two-classroom school and the necessary adjunct facilities. This construction, which is included in the reprograming, will provide classroom space for the present enrollments and an anticipated increase in enrollment of 60 children.

During the past school year, two boys' dormitories at the Sequoyah School, Oklahoma, were determined to be unsafe for occupancy by Bureau structural engineers and have been demolished. Emergency living accommodations were provided for the boys in various rooms throughout the plant. Considerable overcrowding is present in the remaining dormitories. To provide safe living conditions for the boys in the shortest period of time, the Bureau is constructing

13 standard two- and three-bedroom houses at Sequoyah. The children will be housed in these units until funds can be obtained for construction of new dormitories. The 13 houses will be used for school employees when they are no longer needed for the children. Also, there has been an inadequate supply of water at the school plant during the peak periods of use. The city of Tahlequah has an ample supply of water which can be made available to the school by the extension of the necessary waterlines. The city will guarantee the school an adequate and constant supply of water at a cost which will not exceed the cost of operating a Bureau waterplant. The Bureau proposes to obtain its water supply for the school from the city and will enter into an agreement with the city of Tahlequah which will cost $50,000.

The Corps of Engineers is constructing a new school on the Lower Brule Reservation to replace the existing school, because of the inundation of the present school facility by waters from the Big Bend Dam.

The Senate Appropriation Committee, in its report on the Interior Department and related agencies appropriation bill for fiscal year 1964, approved the reprograming of the Bureau's fiscal year 1964 construction appropriation to provide for the Bureau's share of the cost of this school. Because the Corps of Engineers entered into a contract for the construction of the school in fiscal year 1963, the Bureau reprogramed fiscal year 1963 funds for the school. The $30,000 reprogramed in fiscal year 1964 is for the required equipment and furnishings for the school.

To fund the additional projects and to adjust the program to meet the amount appropriated, it is necessary to defer construction of the Goodnews Bay Day School and Koliganek Day School in Alaska; and the Rough Rock Boarding School, White Cone Boarding School, and the Kimbeto Day School on the Navajo Reservation.

In view of the urgent need for these new facilities, it will be very much appreciated if the committee will give early approval to the reprograming requested.

This request is also being sent to the Honorable Michael J. Kirwan, chairman of the Subcommittee on Appropriations for the Department of the Interior and Related Agencies, House of Representatives.

Sincerely yours,

D. Otis Beasley,
*Assistant Secretary of the Interior.*

*Buildings and utilities construction program, fiscal year 1964*

| Summary of projects by States | Program approved by Congress | | | Revised program | | |
|---|---|---|---|---|---|---|
| | Additional spaces | Replacement spaces | Cost estimate | Additional spaces | Replacement spaces | Cost estimate |
| STATES OTHER THAN NAVAJO-HOPI | | | | | | |
| Alaska: | | | | | | |
| Barrow High School | 210 | 0 | $1,632,000 | 210 | 0 | $1,632,000 |
| Barter Island Day School | 30 | 30 | 324,000 | 30 | 30 | 324,000 |
| Bethel subagency facilities | 0 | 0 | 0 | 0 | 0 | 400,000 |
| Circle Day School | 0 | 30 | 190,000 | 0 | 30 | 190,000 |
| Elim Day School | 30 | 30 | 210,000 | 30 | 30 | 210,000 |
| Goodnews Bay Day School | 30 | 30 | 208,000 | 0 | 0 | 0 |
| Grayling Day School | 30 | 30 | 230,000 | 30 | 30 | 230,000 |
| Kasigluk Day School | 60 | 60 | 478,000 | 60 | 60 | 478,000 |
| Koliganek Day School | 30 | 30 | 258,000 | 0 | 0 | 0 |
| Kotzebue High School | 210 | 0 | 1,900,000 | 210 | 0 | 1,900,000 |
| Total, Alaska | 630 | 240 | 5,430,000 | 570 | 180 | 5,364,000 |
| Arizona: | | | | | | |
| Phoenix shop buidling | 0 | 0 | 526,000 | 0 | 0 | 552,000 |
| Sells gas system | 0 | 0 | 50,000 | 0 | 0 | 50,000 |
| Total, Arizona | 0 | 0 | 576,000 | 0 | 0 | 602,000 |
| Colorado: Ignacio school assistance | 0 | 0 | 219,000 | 0 | 0 | 219,000 |
| Total, Colorado | 0 | 0 | 219,000 | 0 | 0 | 219,000 |
| Florida: Seminole schools | 0 | 0 | 0 | 60 | 60 | 470,000 |
| Total, Florida | 0 | 0 | 0 | 60 | 60 | 470,000 |

*Buildings and utilities construction program, fiscal year 1964*—Continued

| Summary of projects by States | Program approved by Congress | | | Revised program | | |
|---|---|---|---|---|---|---|
| | Additional spaces | Replacement spaces | Cost estimate | Additional spaces | Replacement spaces | Cost estimate |
| STATES OTHER THAN NAVAJO-HOPI—con. | | | | | | |
| Mississippi: | | | | | | |
| Bogue Chitto and Conehatta water storage | 0 | 0 | $60,000 | 0 | 0 | $60,000 |
| Central High School | 210 | 0 | 1,110,000 | 210 | 0 | 1,110,000 |
| Total, Mississippi | 210 | 0 | 1,170,000 | 210 | 0 | 1,170,000 |
| Montana: | | | | | | |
| Busby water improvements | 0 | 0 | 60,000 | 0 | 0 | 60,000 |
| Fort Peck jail | 0 | 0 | 128,000 | 0 | 0 | 128,000 |
| Total, Montana | 0 | 0 | 188,000 | 0 | 0 | 188,000 |
| New Mexico: Grants school assistance | 0 | 0 | 370,000 | 0 | 0 | 370,000 |
| Total, New Mexico | 0 | 0 | 370,000 | 0 | 0 | 370,000 |
| North Dakota: Newtown school assistance | 0 | 0 | 450,000 | 0 | 0 | 450,000 |
| Total, North Dakota | 0 | 0 | 450,000 | 0 | 0 | 450,000 |
| Oklahoma: | | | | | | |
| Jones Academy water | 0 | 0 | 70,000 | 0 | 0 | 70,000 |
| Seneca sewage disposal | 0 | 0 | 60,000 | 0 | 0 | 60,000 |
| Sequoyah School | 0 | 0 | 0 | 0 | 0 | 168,000 |
| Sequoyah waterlines | 0 | 0 | 0 | 0 | 0 | 50,000 |
| Total, Oklahoma | 0 | 0 | 130,000 | 0 | 0 | 348,000 |
| Oregon: Tongue Point High School | 0 | 0 | 0 | 1,000 | 0 | 2,921,000 |
| South Dakota: | | | | | | |
| Lower Brule School | 0 | 0 | 0 | 0 | 0 | 30,000 |
| Rosebud School | 480 | 240 | 4,000,000 | 480 | 240 | 4,000,000 |
| Total, South Dakota | 480 | 240 | 4,000,000 | 480 | 240 | 4,030,000 |
| Grand total (States other than Navajo-Hopi) | 1,320 | 480 | 12,533,000 | 2,320 | 480 | 16,132,000 |
| Arizona: | | | | | | |
| Auxiliary water supply | 0 | 0 | 94,000 | 0 | 0 | 94,000 |
| Chilchinbeto Day School | 70 | 50 | 593,000 | 70 | 50 | 593,000 |
| Hahaztel Day School | 275 | 175 | 1,469,000 | 275 | 175 | 1,447,000 |
| Kaibeto Boarding School | 660 | 0 | 4,824,000 | 660 | 0 | 4,698,000 |
| Lone Mesa Boarding School | 1,020 | 0 | 6,662,000 | 1,020 | 0 | 6,497,000 |
| Rough Rock Boarding School | 270 | 60 | 2,557,000 | 0 | 0 | 0 |
| Shonto Boarding School | 750 | 0 | 5,135,000 | 750 | 0 | 5,135,000 |
| White Cone Boarding School | 570 | 90 | 1,973,000 | 0 | 0 | 0 |
| Total, Arizona | 3,615 | 375 | 23,307,000 | 2,775 | 225 | 18,464,000 |
| New Mexico: | | | | | | |
| Auxiliary water supply | 0 | 0 | 124,000 | 0 | 0 | 124,000 |
| Chuska (Choshgai) School | 660 | 0 | 4,819,000 | 660 | 0 | 4,546,000 |
| Kimbeto Day School | 190 | 50 | 865,000 | 0 | 0 | 0 |
| Magdalena dormitory | 128 | 0 | 1,185,000 | 128 | 0 | 1,185,000 |
| Wingate High School | 1,020 | 0 | 6,639,000 | 820 | 200 | 6,604,000 |
| Total, New Mexico | 1,998 | 50 | 13,632,000 | 1,608 | 200 | 12,459,000 |
| Total, Navajo-Hopi | 5,613 | 425 | 36,939,000 | 4,383 | 425 | 30,923,000 |
| Quarters, various, bureauwide | 0 | 0 | 700,000 | 0 | 0 | 300,000 |
| Water exploration and development | 0 | 0 | 245,000 | 0 | 0 | 245,000 |
| Advance planning | 0 | 0 | 450,000 | 0 | 0 | 200,000 |
| Total, new construction | 6,933 | 905 | 50,867,000 | 6,703 | 905 | 47,800,000 |
| Major alterations and improvements | 0 | 0 | 5,000,000 | 0 | 0 | 5,000,000 |
| Grand total | | | 55,867,000 | | | 52,800,000 |
| Funds appropriated | | | 52,800,000 | | | 52,800,000 |
| Not funded | | | 3,067,000 | | | 0 |

Chairman HAYDEN. Will you advise the committee of the total cost of this conversion?

Mr. NASH. Yes, sir. The total cost of the conversion for 1,000 children is, in our proposals, to spread across 2 fiscal years. The $2,920.000 you just referred to is in fiscal 1964, and an additional $2 million in fiscal 1965 which will be a total cost of $4,963,000.

Chairman HAYDEN. What do you plan to do with the money for which you request reprograming?

### HIGH SCHOOL FOR INDIAN CHILDREN

Mr. NASH. In the $2,900,000 that we are asking for out of the 1964 money, we would build a new dormitory facility for girls, build new academic classroom facilities, a new auditorium-gymnasium complex, provide for the demolition of some buildings that are not suitable for school purposes and which stand in the way of new construction, $250,000 for utilities and site work and $231,000 for engineering plans and surveys, which will come to a total of $2,921,000.

Chairman HAYDEN. What plans do you have for the funds requested in fiscal year 1965?

Mr. NASH. For fiscal year 1965, we are asking for $2,042,000 to renovate the old bachelor officer's quarters to a girls' dormitory, to renovate employee quarters, to renovate a barracks to a dormitory and dining hall-kitchen complex, to renovate the administration building, to renovate the public health clinic, to remodel one of the school shops, money for furnishings and equipment and, again, money for engineering plans and surveys.

### NEW CONSTRUCTION COMPARED WITH CONVERSION

Chairman HAYDEN. How much would this high school cost if you were to build it as a new facility?

Mr. NASH. Building costs vary a good deal, Mr. Chairman, according to the locality. This works out to about $5,000 per student, that is, per seat-bed. The cheapest comparable facility would be Fort Wingate, which is largely a renovation job. For example, the utilities are already in at Fort Wingate and that is going to run $6,600 per seat-bed. We have a good many facilities that run as high as $7,500 and when you get into Alaska, where construction costs run about 2½ times as high, you have to go up as high as $20,000 a seat-bed. But I think a minimum of $7,500 would be your most comparable figure for new construction in the Southwest.

Senator BARTLETT. Commissioner Nash, how much more would it cost to build new facilities than it will cost to convert the naval facilities?

Mr. NASH. In that particular location?

Senator BARTLETT. Right there.

Mr. NASH. I would say you could not expect to build there new for less than $7500 per seat-bed. In other words, for a thousand-child school $7.5 million instead of $5 million.

Senator BARTLETT. $2.5 million more?

Mr. NASH. Yes, sir.

Senator BARTLETT. And will the reconverted establishment be as satisfactory in every way as the new?

Mr. NASH. If we can have our druthers, Senator Bartlett, we always prefer to design and build from scratch. But we are successfully using Mount Edgecumbe, which was a Coast Guard station, for

a school, although we know we are going to have to come back and ask for rehabilitation and remodeling money for Mount Edgecumbe.

We are using at Brigham City, Utah, the Intermountain School. That was not designed or built for a school, but we have 2,200 students there, and are using it successfully.

ESTIMATED COST OF OPERATION AND MAINTENANCE

Chairman HAYDEN. Is there a difference in the estimated cost of operation and maintenance between the proposed Tongue Point facility and a new school?

Mr. NASH. Yes, sir. When we took over these facilities that were not designed for school purposes, we saved a lot of money on construction costs, but the operation and maintenance cost has been somewhat higher. We estimate that the operation and maintenance at Tongue Point will run about $500,000 a year. In a school of 1,000 children, we would normally expect between $250,000 to $300,000 operation and maintenance cost.

INCREASED SCHOOL FACILITIES

I might add, sir, that the full facilities will not be exhausted when a thousand children are enrolled at Tongue Point. We believe that it may be possible in the course of time to develop this for another thousand children without adding greatly to the costs. The reason for that is that the Navy Heights housing development has 368 dwellings and they will not all be used for a school of 1,000 children. If we can solve the problem of supervision, it may eventually be possible to put in a thousand older students in cottages, which we like very much. They are among our most successful schools, where we are able to do that. If that is the case, the $5,000 a child would probably drop another $1,000 which would mean we are getting a school here for almost 50 percent the cost of construction. Our operating costs would be somewhat higher.

Chairman HAYDEN. You would still have a higher operating cost?

Mr. NASH. We would still have a higher operating cost; yes, sir.

Chairman HAYDEN. Why can not the Indian children for whom this school is intended be sent to public high schools near their homes?

USE OF PUBLIC HIGH SCHOOLS

Mr. NASH. The Indian children who will be sent to the school come from remote locations where there are either no public school districts or where the existing public school districts are already overcrowded. For example, we have in the Navajo school system, not necessarily at the Navajo Reservation but in off-reservation high schools, nearly 3,000 Navajo young men and women. They are not children; they are over the age of 18. They are in our special remedial education program. They are people for whom no educational facilities were provided in their youth, who reached the age of 14 or over, without the ability to speak English, without ever having been to school or having been to school very slightly. This is also true in Alaska. Now while we have had this classroom building program and we are getting caught up with the backlog of out-of-school children, we still have for several years, the need to remedy the educational deficiency.

Our policy is to educate children as close to home as possible. Ideally, every Indian child ought to be the same as everybody else; live at home and go to day school.

### Learning English and American Ways

Chairman Hayden. As a practical matter, they learn English and American ways off the reservation in these boarding schools much better than they do on the reservation?

Mr. Nash. Yes, sir. There is no getting around the fact that if the home does not have values of education, is overcrowded and does not have light and heat and a place to study, they are not going to get very good results with home living. If there has to be travel to distant boarding schools, we think it ought to be the older children, and, therefore, our expectation would be to send the older children to Tongue Point, if the committee gives its approval. And this would open up spaces in existing boarding schools closer to home for the younger children. And this is the way in which the Tongue Point would serve the total Bureau system.

Chairman Hayden. Senator Bartlett.

Senator Bartlett. Commissioner Nash, from what you have said here this morning, I gather that the saving to be affected by conversion of Tongue Point would be lost in less than 10 years by the added costs of operation and maintenance?

Mr. Nash. Yes, sir.

### Attending Children From New Mexico and Arizona

Senator Bartlett. Now I am told, and this is thirdhand—the testimony was given before the House counterpart of this subcommittee—that most of the children to be placed at Tongue Point would come from the Southwest. Is that right?

Mr. Nash. We are asking for Tongue Point as an addition to our total system, because our policy is to ask the older children to do the traveling and so go to distant locations far from home. Because the Southwest is the place where the largest number of young people over the age of 18 are now in our school system, this is probably the place from which the majority of them would be drawn. I would not, however, close out any other area. For example, we are not planning this primarily to service the Northwestern States. On the other hand, it is a fact that our other boarding schools are getting an increasing number of referrals from dropouts and other educational failures from public schools all over the country, including the Pacific Northwest. So if some young people, who are now being accepted in our boarding schools because they are not being successful in the public schools, should find Tongue Point closer to home, we would want to be able, of course, to send them there. We are not thinking of this as a substitute for any other school and we are not thinking of it primarily as the place for Alaskan children, for example. But, again, I would not close out the possibility that there might be facilities available at Tongue Point that children from any State of the Union, including Alaska, might take advantage.

Senator Bartlett. The majority would be from New Mexico and Arizona?

Mr. Nash. I assume so, yes.

CONSTRUCTION PROJECTS DEFERRED

Senator BARTLETT. When Assistant Secretary Beasley wrote Chairman Hayden on December 20 last in regard to the reprograming which you requested, the letter contained this paragraph:

To fund the additional projects and to adjust the program to meet the amount appropriated, it is necessary to defer construction of the Goodnews Bay Day School and the Koliganek Day School, in Alaska, and the Rough Rock Boarding School, the White Cone Boarding School, and the Kimbeto Day School on the Navajo Reservation.

Where is Rough Rock?

Mr. NASH. On the Navajo Reservation.

Senator BARTLETT. And White Cone?

Mr. NASH. White Cone is on the Navajo Reservation.

Senator BARTLETT. But when the presentation was made for the 1964 budget it was thought these facilities should be constructed during the current fiscal year, obviously.

Mr. NASH. Yes, sir.

TONGUE POINT ABANDONED BY NAVY

Senator BARTLETT. Now that leads me to this question and I quote again from Secretary Beasley's letter:

Recently it became known to the Bureau that the facilities at the Tongue Point Naval Base at Astoria, Oreg., could be made available to the Bureau.

Tongue Point had been abandoned some years ago by the Navy, as I understand it.

Mr. NASH. In 1961.

Senator BARTLETT. Was it only after the 1964 Appropriation Act became law that it was called to your attention that these facilities would be available?

Mr. NASH. Yes, sir.

Senator BARTLETT. Was it the judgment of the Department, then, that this project had a priority over the projects that had been approved by the Congress already?

Mr. NASH. Yes, sir.

PROGRAM OF PROJECTS DEFERRED

Senator BARTLETT. Now, let me ask you this question: What if one of the committees, either the Appropriations Committee of the House or the Senate, was not to approve all of the reprograming requests? Would that mean, for example, that insofar as funds are concerned, that these projects that were deferred would go into immediate construction?

STATUS OF ALASKAN SCHOOLS

Mr. NASH. Of the two Alaskan schools, Goodnews Bay and Koligane, if I have them correct, we have put them in our 1965 schedule so that the effect of the reprograming letter, if it should be approved, was merely to defer construction of these two schools for 1 year. The same is true with Rough Rock and Kimbeto. Both are in our 1965 justification. White Cone we have not put in our 1956 justification for a different reason. It is located in what is now the joint Navajo-Hopi Reservation, which was declared to be a joint reservation by court order, and there is so much confusion and tension over the ad-

ministration of this joint reservation area that we deemed it advisable not to construct White Cone at this time.

Senator BARTLETT. May I inquire just a bit further to try to date the situation. Secretary Beasley said, as I have already related:

> Recently it became known to the Bureau that the facilities at the Tongue Point Naval Base at Astoria, Oreg., could be made available to the Bureau.

Can you give us a more exact date as to when that information reached you?

Mr. NASH. Yes, sir. I became aware of Tongue Point by a call from the Bureau of the Budget, Executive Office of the President, in the early summer of 1963. It would be hard to pinpoint it by month. Mr. Massey, when did we send our first team up to look at it?

Senator BARTLETT. That is close enough. Your answer is completely explanatory. I have no further questions.

### WHITE CONE SCHOOL

Chairman HAYDEN. You spoke about the White Cone School. Just where is that located; in the Hopi part of the reservation?

Mr. NASH. No, sir. White Cone is just outside of district 6, Mr. Chairman, but within the so-called formerly disputed area.

Chairman HAYDEN. About how far is it from Toreva?

Mrs. THOMPSON. It is north of Holbrook. It is in that area, south of the Hopi Reservation.

Mr. NASH. It is about 6 miles from district 6 on a line north of Holbrook.

### SCHOOL CONSTRUCTION IN FLORIDA

Chairman HAYDEN. You have also asked authority to reprogram fiscal year 1964 funds to construct two 2-classroom day schools in Florida. Would you please comment on this request, indicating the total amount of funds which you will need?

Mr. NASH. Yes, sir. The total amount needed is $470,000. That would be two 2-classroom day schools each, with a lunchroom-kitchen, a multipurpose room, clinics, office space; quarters at each for employees would also be provided in addition to a utility building, and site work such as filling, grading, streets, and sidewalks.

### SAGE FACILITY AT BETHEL ALASKA

Chairman HAYDEN. The third request in that letter is for authority to reprogram some of the appropriation for quarters to convert the Air Force SAGE facility at Bethel, Alaska, into office and quarters. How much do you propose to expend for this purpose out of fiscal year 1964 funds? Is there an estimate for the remainder of the funds in the fiscal year 1965 budget?

Mr. NASH. Yes, sir. The cost for 1964 is estimated at $400,000 and the total estimated cost is $677,500. We do not have a request for this additional amount in 1965. We would expect to put that in the 1966 budget.

CONSTRUCTION AT SEQUOYAH SCHOOL, OKLAHOMA

Chairman HAYDEN. Also included in that letter is a proposal to construct 13 houses at the Sequoyah School, Okla., to be used temporarily as dormitories until permanent dormitories can be constructed.

The funds needed for the permanent construction are requested in the fiscal year 1965 budget. How much do you propose to expend for the houses?

Mr. NASH. We propose to spend $168,000 for those buildings.

EQUIPMENT FOR LOWER BRULE SCHOOL

Chairman HAYDEN. The last of your reprograming requests is for $30,000 for equipment, such as desks, in the Lower Brule School about which you may want to say something.

Mr. NASH. Yes, sir. The amount for the construction of the building and all equipment that is connected to the building was in the original request. The amount we are asking for now is to cover desks, chairs, tables, bookcases, pots, pans, dishes, wastebaskets, and other miscellaneous items that are not part of the permanent fixtures. And this is a once-only item in the sense that we would not come back for a like amount in the next year.

APPROVAL OF REPROGRAMING REQUEST, EXCEPT TONGUE POINT

Chairman HAYDEN. If there is no objection, your requests regarding the Bethel field office, school facilities in Florida, housing facilities at Sequoyah School, Okla., and equipment for the Lower Brule School will be approved. The matter of the Tongue Point School will be retained for further consideration.

Mr. NASH. Yes, sir.

SCHOOL CONSTRUCTION

Chairman HAYDEN. Would you please supply for the record a table showing by years, beginning with fiscal year 1961, the school construction for which Congress has appropriated funds; the construction items which have been completed; the construction items for which funds are still available; and the construction items for which funds are no longer available; indicating the disposition of the funds, whether the items are still considered to be necessary, and if so, when additional funds will be proposed?

Mr. NASH. Mr. Chairman, we will do that for the record; yes, sir.

(The information referred to follows:)

*Buildings and utilities program*

FISCAL YEAR 1961

| Project name | Approved program estimate | Project started | Funds still available | Funds not available | Comments |
|---|---|---|---|---|---|
| Alaska: | | | | | |
| Barrow Elementary School | $186,000 | Yes | | | (1). |
| Chequils Lake School | 58,000 | Yes | | | (1). |
| Chevak School | 175,000 | Yes | | | (1). |
| Galena School | 169,000 | Yes | | | (1). |
| Koliganek School | 198,000 | No | | X | Project in fiscal year 1965 budget.[2] |
| Kotlek School | 322,000 | Yes | | | |
| Kevigak School | 170,000 | Yes | | | (1). |
| Minto School | 97,000 | Yes | | | |
| Newktak School | 261,000 | Yes | | | |
| Sheldon Point School | 147,000 | No | | X | Project proposed for fiscal year 1966.[2] |
| Arizona: | | | | | |
| Phoenix School Dormitory | 389,000 | Yes | | | |
| Sacaton Municipal Center | 135,000 | Yes | | | |
| San Carlos Municipal Center | 155,000 | Yes | | | |
| San Carlos Bylas Municipal Center | 40,000 | No | | X | No plans for future request.[2] |
| Sells Municipal Center | 130,000 | Yes | | | |
| Idaho: Fort Hall Municipal Center | 100,000 | Yes | | | |
| Kansas: Haskell School | 2,050,000 | Yes | | | |
| Montana: | | | | | |
| Flathead Sanitary Facilities | 40,000 | Yes | | | |
| Fort Belknap water and sewer | 117,000 | Yes | | | |
| Busby School (advance plan) | 40,000 | Yes | | | |
| Nevada: Owgbee water | 40,000 | Yes | | | |
| North Carolina: Cherokee School | 875,000 | Yes | | | |
| North Dakota: Houle water | 35,000 | Yes | | | |
| Oklahoma: Jones Academy dormitory. | 389,000 | Yes | | | |
| Oregon: Chemawa School rehabilitation. | 141,000 | Yes | | | |
| South Dakota: | | | | | |
| Flandreau School | 600,000 | Yes | | | |
| Manderson School | 872,000 | Yes | | | |
| Red Scaffold bus garage | 30,000 | Yes | | | |
| Wanblee School water | 40,000 | Yes | | | |
| Wyoming: | | | | | |
| Wind River water | 60,000 | Yes | | | |
| Wind River Jail | 75,000 | Yes | | | |
| NAVAJO-HOPI | | | | | |
| Arizona: | | | | | |
| Chinle School equipment | 350,000 | Yes | | | |
| Pinon School | 120,000 | Yes | | | |
| Keams Canyon water | 80,000 | Yes | | | |
| Teec Nos Pos School | 1,400,000 | Yes | | | |
| Tuba City School rehabilitation. | 264,000 | Yes | | | |
| White Cone School | 1,200,000 | No | | X | Plans for future request depend upon resolving Navajo-Hopi land dispute.[2] |
| Dennehotso School rehabilitation. | 50,000 | Yes | | | |
| New Mexico: | | | | | |
| Shiprock water | 200,000 | Yes | | | |
| Wingate dormitory replacement. | 166,000 | Yes | | | |
| Albuquerque public school contribution. | 100,000 | Yes | | | |
| Albuquerque dormitory and kitchen. | 110,000 | Yes | | | |
| Major repairs and improvements. | 1,000,000 | Yes | | | |
| Quarters, various | 104,000 | Yes | | | |
| Water exploration and development. | 60,000 | Yes | | | |

See footnotes at end of table, p. 196.

*Buildings and utilities program*—Continued

FISCAL YEAR 1962

| Project name | Approved program estimate | Project started | Funds still available | Funds not available | Comments |
|---|---|---|---|---|---|
| Alaska: | | | | | |
| Barrow Elementary School | $874,000 | Yes | | | |
| Barrow utilities (advance plan) | 50,000 | Yes | | | |
| Chevak School | 70,000 | Yes | | | |
| Egegils School | 175,000 | Yes | | | |
| Gambell School | 237,000 | Yes | | | |
| Kaltag School | 58,000 | Yes | | | |
| Kotzebue Elementary School | 543,000 | Yes | | | Project in fiscal year 1965 budget.[3] |
| Mountain Village School | 276,000 | Yes | | | |
| Numapitchelk School | 116,000 | Yes | | | |
| Pilot Station School | 187,000 | Yes | | | |
| Point Hope School | 249,000 | Yes | | | |
| Quinhagak School | 276,000 | Yes | | | |
| Selawik School | 262,000 | Yes | | | |
| Togiak School | 123,000 | Yes | | | |
| Venetie School | 200,000 | Yes | | | |
| Wainwright School | 257,000 | Yes | | | |
| Wales School | 173,000 | Yes | | | |
| Arizona: | | | | | |
| Santa Rosa Ranch School | 140,000 | Yes | | | |
| Hualapi Jail | 82,000 | Yes | | | |
| California: | | | | | |
| Sherman kitchen-dining hall | 315,000 | Yes | | | |
| Kansas: | | | | | |
| Haskell Institute equipment | 175,000 | Yes | | | |
| Mississippi: | | | | | |
| Bogue Chitto dormitory | 170,000 | Yes | | | |
| Conehatta dormitory | 170,000 | Yes | | | |
| Pearl River dormitory | 170,000 | Yes | | | |
| Red Water School | 357,000 | Yes | | | |
| Montana: Busby School replacement. | 1,323,000 | Yes | | | |
| Nevada: Stewart classroom replacement. | 753,000 | Yes | | | |
| North Carolina: Cherokee School | 715,000 | Yes | | | |
| North Dakota: | | | | | |
| Belcourt School | 993,000 | Yes | | | |
| White Shield School | 805,000 | Yes | | | |
| Wahpeton storm sewer | 90,000 | Yes | | | |
| South Dakota: | | | | | |
| Flandreau boys dormitory | 883,000 | Yes | | | |
| Pierce dormitories | 882,000 | Yes | | | |
| Loneman Day School | 225,000 | Yes | | | |
| Oglala school dining and kitchen. | 300,000 | Yes | | | |
| Utah: Uintah and Ouray water | 40,000 | Yes | | | |
| NAVAJO-HOPI | | | | | |
| Arizona: | | | | | |
| Dilcon School | 1,117,000 | Yes | | | |
| Denehotso School | 929,000 | Yes | | | [1]. |
| Dinnebeto Dam School | 719,000 | Yes | | | |
| Hunters Point School | 925,000 | Yes | | | |
| Kaibeto School | 906,000 | Yes | | | |
| Red Lake School | 410,000 | Yes | | | |
| Shonto School | 1,720,000 | Yes | | | |
| White Cone School | 1,606,000 | No | | X | Plans for future fund request depend upon resolving Navajo-Hopi land dispute.[2] |
| Wide Ruins School | 1,061,000 | Yes | | | |
| New Mexico: | | | | | |
| Aztec dormitory | 550,000 | Yes | | | |
| Crownpoint School | 3,800,000 | Yes | | | |
| Lake Valley School | 814,000 | Yes | | | Project constructed in 1963.[3] |
| Nenahnezad School | 1,379,000 | Yes | | | |
| Pueblo Pintado School | 1,112,000 | Yes | | | |
| Toadlena School | 1,480,000 | Yes | | | |
| Quarters, various | 250,000 | Yes | | | |
| Water exploration and development. | 85,000 | Yes | | | |
| Advance planning | 1,261,000 | Yes | | | |

See footnotes at end of table, p. 196.

*Buildings and utilities program*—Continued

FISCAL YEAR 1962—Continued

| Project name | Approved program estimate | Project started | Funds still available | Funds not available | Comments |
|---|---|---|---|---|---|
| REHABILITATION WORK | | | | | |
| Arizona: Theodore Roosevelt School | $100,000 | Yes | | | |
| California: Hoopa Valley water | 100,000 | Yes | | | |
| Kansas: | | | | | |
| Haskell utilities | 225,000 | Yes | | | |
| Haskell, Tinker Hall | 60,000 | Yes | | | |
| Mississippi: Choctaw School grading. | 50,000 | Yes | | | |
| Oklahoma: | | | | | |
| Cheyenne-Arapaho School | 100,000 | No | | X | Project proposed for fiscal year 1966.[2] |
| Sequoyah girls dormitory | 100,000 | Yes | | | |
| Oregon: Chemawa School | 270,000 | Yes | | | |
| NAVAJO-HOPI | | | | | |
| Arizona: | | | | | |
| Keams Canyon water | 120,000 | Yes | | | |
| Tuba City School | 282,000 | Yes | | | |
| Tuba City water and sewer | 100,000 | Yes | | | |
| New Mexico: | | | | | |
| Albuquerque dormitory | 160,000 | Yes | | | |
| Santa Fe School | 729,000 | Yes | | | |
| San Juan School | 150,000 | No | | X | Project proposed for fiscal year 1966.[3] |
| Major alterations and improvements. | 1,500,000 | Yes | | | |
| FISCAL YEAR 1963 | | | | | |
| Alaska: | | | | | |
| Alitak School | $141,000 | Yes | | | |
| Barrow utilities | 540,000 | Yes | | | |
| Eagle School | 159,000 | Yes | | | |
| Fairbanks School (advance planning). | 350,000 | No | | | No plans for future request.[3] |
| Hooper Bay School | 519,000 | Yes | | | |
| Kiana School | 387,000 | Yes | | | |
| Kwethluk School | 230,000 | Yes | | | |
| Newktak School | 191,000 | Yes | | | |
| Noatak School | 378,000 | Yes | | | |
| Nondalton School | 219,000 | Yes | | | |
| Old Harbor School | 194,000 | Yes | | | |
| Oscarville School | 158,000 | Yes | | | |
| Scammon Bay School | 196,000 | Yes | | | |
| Stebbins School | 192,000 | Yes | | | |
| Tanunak School | 188,000 | Yes | | | |
| Tatitlek School | 186,000 | Yes | | | |
| Tetlin School | 160,000 | Yes | | | |
| Arizona: | | | | | |
| Phoenix classroom building | 922,000 | Yes | | | |
| Phoenix girls' dormitory | 745,000 | Yes | | | |
| Salt River water and sewer | 75,000 | Yes | | | |
| California: Sherman boys' dormitory | 690,000 | Yes | | | |
| Montana: | | | | | |
| Blackfeet dormitory | 665,000 | Yes | | | |
| Busby fire station | 24,000 | Yes | | | |
| Crow Agency office addition | 201,000 | Yes | | | (1). |
| Northern Cheyenne jail | 163,000 | Yes | | | |
| Nevada: | | | | | |
| Owyhee jail | 157,000 | Yes | | | |
| Stewart School dormitory rehabilitation. | 383,000 | Yes | | | |
| New Mexico: | | | | | |
| Mescalero water and sewer | 250,000 | Yes | | | |
| Laguna Consolidated School | 785,000 | Yes | | | |
| North Dakota: | | | | | |
| Belcourt additional facilities | 553,000 | Yes | | | |
| Fort Yates Elementary School | 915,000 | Yes | | | |
| Mandaree High School | 495,000 | Yes | | | |
| Wahpeton dormitories | 739,000 | Yes | | | |
| Lower Brule School | 383,000 | Yes | | | (1). |

See footnotes at end of table, p. 196.

*Buildings and utilities program*—Continued

FISCAL YEAR 1963—Continued

| Project name | Approved program estimate | Project started | Funds still available | Funds not available | Comments |
|---|---|---|---|---|---|
| Oklahoma: | | | | | |
| Cheyenne-Arapaho storm shelter. | $42,000 | No | | X | No plans for future request.[2] |
| Chilocco shop building | 218,000 | Yes | | | |
| Fort Sill kitchen-dining hall | 218,000 | Yes | | | |
| Riverside School and dining hall | 367,000 | Yes | | | |
| Seneca School | 379,000 | Yes | | | |
| North Dakota: Flandreau School | 1,675,000 | Yes | | | |
| Utah: Uintah and Ouray water | 42,000 | Yes | | | |
| Washington: Colville Agency sewage lagoons. | 76,000 | Yes | | | |
| NAVAJO-HOPI | | | | | |
| Arizona: | | | | | |
| Cove School water | 105,000 | Yes | | | |
| Greasewood School | 2,436,000 | Yes | | | |
| Kayenta School | 2,437,000 | Yes | | | |
| Keams Canyon sewage lagoons | 126,000 | Yes | | | |
| Klagetah School | 1,729,000 | No | | X | No plans for future request.[2] |
| Low Mountain School | 1,484,000 | No | | X | Do.[2] |
| Lukachukai School | 1,813,000 | Yes | | | |
| Oraibi multipurpose room | 180,000 | Yes | | | |
| Red Rock School | 1,642,000 | No | | X | Project in fiscal year 1965 budget.[2] |
| Rock Point School | 1,548,000 | Yes | | | |
| Rough Rock School | 1,134,000 | No | | X | Do.[2] |
| Teec Nos Pos School | 3,891,000 | Yes | | | (1). |
| Tuba City School | 4,373,000 | Yes | | | |
| White Cone School | 1,818,000 | No | | X | Plans for future fund request depend upon resolving Navajo-Hopi land disputes.[2] |
| New Mexico: | | | | | |
| Borrego Pass water improvements. | 25,000 | Yes | | | |
| Crownpoint School | 1,911,000 | Yes | | | |
| Crystal School | 985,000 | No | | X | Project proposed for fiscal year 1966.[3] |
| Crownpoint office | 232,000 | Yes | | | (1). |
| Lake Valley School | 965,000 | Yes | | | |
| Tahatchi School | 1,261,000 | Yes | | | |
| White Horse School | 1,096,000 | No | | X | No plans for future request.[2] |
| Wingate water improvements | 125,000 | Yes | | | |
| Wingate multipurpose room | 296,000 | Yes | | | (1). |
| Utah: | | | | | |
| Aneth School | 2,815,000 | Yes | | | |
| Quarters, various | 634,000 | Yes | | | |
| Water exploration and development. | 160,000 | Yes | | | |
| Advance planning | 500,000 | Yes | | | |
| Major alterations and improvements. | 5,000,000 | Yes | | | |

FISCAL YEAR 1964

| | | | | | |
|---|---|---|---|---|---|
| Alaska: | | | | | |
| Barrow High School | $1,632,000 | Yes | | | |
| Barter Island Day School | 324,000 | Yes | | | |
| Bethel subagency facilities | 400,000 | Yes | | | (1). |
| Circle Day School | 190,000 | Yes | | | |
| Elim Day School | 210,000 | No | X | | Project to start in spring 1964. |
| Goodnews Bay Day School | 208,000 | | | X | Project in fiscal year 1965 budget.[2] |
| Grayling Day School | 230,000 | Yes | | | |
| Kasigluk Day School | 478,000 | No | X | | Project to start in spring 1964. |
| Koliganek Day School | 258,000 | No | | X | Project in fiscal year 1965 budget.[2] |
| Kotzebue High School | 1,900,000 | Yes | | | |

See footnotes at end of table, p. 196.

*Buildings and utilities program*—Continued

FISCAL YEAR 1964—Continued

| Project name | Approved program estimate | Project started | Funds still available | Funds not available | Comments |
|---|---|---|---|---|---|
| Arizona: | | | | | |
| Phoenix shop building | $526,000 | Yes | | | |
| Sells gas system | 50,000 | Yes | | | |
| Gila Crossing School | 450,000 | No | X | | Project to start in spring 1964.[1] |
| Colorado: Ignacio School assistance | 219,000 | Yes | | | |
| Florida: Seminole schools | 470,000 | No | X | | Do.[1] |
| Mississippi: | | | | | |
| Bogue Chitto and Conehatta water storage | 60,000 | Yes | | | |
| Central High School | 1,110,000 | No | X | | Do. |
| Montana: | | | | | |
| Busby water improvements | 60,000 | No | X | | Do. |
| Fort Peck jail | 128,000 | No | X | | Do. |
| New Mexico: Grants School assistance. | 370,000 | Yes | | | |
| North Dakota: Newtown School assistance. | 450,000 | Yes | | | |
| Oklahoma: | | | | | |
| Jones Academy water | 70,000 | Yes | | | |
| Seneca sewage disposal | 60,000 | Yes | | | |
| Sequoyah School | 168,000 | Yes | | | (1). |
| Sequoyah water lines | 50,000 | Yes | | | (1). |
| Oregon: Tongue Point High School | 2,921,000 | No | X | | Project start not scheduled. |
| South Dakota: | | | | | |
| Lower Brule School | 30,000 | No | | | Equipment to be purchased.[1] |
| Rosebud School | 4,000,000 | No | X | | Project to start in spring 1964. |
| NAVAJO-HOPI | | | | | |
| Arizona: | | | | | |
| Auxiliary water supply | 94,000 | Yes | | | |
| Chilchinbeto Day School | 593,000 | Yes | | | |
| Hahaztel Day School | 1,469,000 | No | X | | Do. |
| Kaibeto Boarding School | 4,824,000 | Yes | | | |
| Lone Mesa Boarding School | 6,662,000 | No | X | | Do. |
| Rough Rock Boarding School | 2,557,000 | No | | X | Project in 1965 budget.[2] |
| Shonto Boarding School | 5,135,000 | Yes | | | |
| White Cone Boarding School | 1,973,000 | No | | X | Plans for future fund request depend upon resolving Navajo-Hopi land dispute.[2] |
| New Mexico: | | | | | |
| Auxiliary water supply | 124,000 | Yes | | | |
| Chuska (Chosgai) School | 4,819,000 | Yes | | | |
| Kimbeto Day School | 865,000 | No | | X | Project in 1965 budget. |
| Magdalena dormitory | 1,185,000 | Yes | | | |
| Wingate High School | 6,639,000 | Yes | | | |
| Quarters, various | 700,000 | Yes | | | |
| Water Exploration and development. | 245,000 | Yes | | | |
| Advance planning | 450,000 | Yes | | | |
| Major alterations and improvements. | 5,000,000 | Yes | | | |

[1] Project added through reprograming.
[2] Project deleted through reprograming and funds transferred to projects which were added and to other approved projects when costs exceeded estimated amounts.
[3] School destroyed by fire after being 60 percent complete.

Chairman HAYDEN. Which of the school construction items for which funds were made available in fiscal year 1964 have not been contracted? Indicate whether there are any of these on which contracts will not be sought, and give the reason why it is no longer thought necessary to perform the building.

Mr. NASH. May we include that as a part of the information just requested?

Chairman HAYDEN. Yes. Are there any proposed construction items in the fiscal year 1965 bill which the Bureau feels will not be obligated during fiscal year 1965? If so, please indicate the particular items.

Mr. NASH. Mr. Chairman, not at this time. As far as we can see from the stage of our design and reports from the architectural engineering unit, we will obligate fully.

Chairman HAYDEN. You could not indicate any particular item?

Mr. NASH. No, sir. I think we will obligate everything.

### KOLIGANEK DAY SCHOOL—ALASKA

Chairman HAYDEN. For Koliganek Day School in Alaska you are asking $358,000. Last year you asked $258,000 but have not spent it because the town has not moved as was intended and the funds have been reprogramed to another project. Is there any assurance that the village will be moved during the coming fiscal year?

Mr. NASH. The residents of Koliganek, which is located 60 miles north of Dillingham, are moving the village to a new site and the move was precipitated by the annual flooding of the Nuskagak River and the school is still urgently needed. We have reprogramed it for 1965. The only reason the villages did not move was because we were unable to construct the building.

Chairman HAYDEN. Are the buildings underway now?

Mr. NASH. No, sir. We set that to one side and deferred it because of the greater priority of other items, but the villagers are still anxious to move and they are simply waiting on us to provide the school building.

### KIMBETO DAY SCHOOL—NEW MEXICO

Chairman HAYDEN. For the Kimbeto Day School in New Mexico, for which $865,000 was appropriated in fiscal year 1964 but which funds have been reprogramed, do you believe that the land title can be cleared during the coming fiscal year so that it will be possible for you to obligate the $865,000 which you are again requesting?

Mr. NASH. Yes, sir. We believe that question will be cleared up and we can go ahead.

### TONGUE POINT SCHOOL—OREGON

Chairman HAYDEN. In the event the Congress does not approve a reprograming of over $2,900,000 of fiscal year 1964 funds for the Tongue Point School in Oregon, will you need the $2,042,000 requested in the fiscal year 1965 budget?

Mr. NASH. If the committee does not approve the reprograming of the 1964 funds for Tongue Point, we would take it that they did not wish us to convert the facility to school purposes and we would, therefore, not ask for the $2,042,000 in fiscal year 1965. However, we need the thousand spaces and we would take this to be a direction of the committee to continue with the type of boarding school building program that we have been going ahead with before the Tongue Point matter came up. That is, our existing boarding high schools need to be enlarged and improved and we know that as we are now

getting on top of the backlog of out-of-school elementary children, there will be a demand for high school services in the near future. And we would, therefore, wish to go ahead with a high school building program. If the committee approves Tongue Point, then this will provide us with 1,000 high school spaces. If not, we ought to go ahead with some other high school for a like number of children on the order of 1,000. It would, as I say, cost, depending on where we are building, anywhere from $7.5 million up to $8 million, $8.5 million, or $9 million, depending on the site.

### Location of Employee Quarters

Chairman Hayden. Where do you propose to place the 30 quarters for which you have budgeted $700,000, and how many of these 30 quarters are to replace existing ones?

Mr. Nash. Mr. Chairman, we would put 10 quarters at Fort Yates, N. Dak.; 10 quarters at the Northern Cheyenne Agency in Montana; and 10 quarters at the Navajo Reservation. These are all new.

### Construction Funds Added by Congress

Chairman Hayden. Last year the Congress added funds for schools at the Rosebud School Mission; Ignacio, Colo.; Newtown, N. Dak.; and Grants, N. Mex., and for a jail on the Fort Peck Indian Reservation. What is the status of these projects at this time?

Mr. Nash. Mr. Allen, would you answer this question for the Chairman?

Mr. Allen. The Rosebud School is under design. We hope to get it out for bids, in March 1964. The money for the three schools that were to assist the public school districts have all been made available to those districts. I do not know anything about their status of construction.

On the jail at Fort Peck, we are working with the tribe in designing a facility. You will remember, the tribe is to put up $20,000 in matching funds.

### Water Shortage at Mill Creek School

Senator McGee. A serious situation concerning the water shortage at the Mill Creek School has just recently been brought to my attention.

By way of background, Mill Creek School is in School District No. 14 at Ethete. It is on the Lander Route and is on the Wind River Reservation. Since most of the land is held in trust by the Federal Government for the Indians it does not appear on the tax rolls and is one of the poorest in valuation per child of any district in the State. It has nearly exhausted its bonded indebtedness limitation for expansion of its classroom facilities.

The enrollment in the Mill Creek School on January 10, 1964, was 327 for purposes of a Public Law 815 survey. Most of these children are Indians and over 90 percent are federally connected for Public Law 815 and Public Law 874 funds.

The present source of water for the school is from wells and the amount of water recovered has dropped off drastically. Addition of pumps and extra storage facilities has not alleviated the situation;

consequently, the number of showers the children can take and the laundering by kitchen personnel, and so forth, has been cut back. By February 8, 1964, the water supply was so low that it became necessary to start hauling water from Lander—a 26-mile round trip—at a cost of 1 cent per gallon. This expense over a period of years would, of course, be prohibitive.

The most promising solution considered by the council is bringing in water from the Little Wind River at an estimated cost of $60,000.

I would very much appreciate having the Bureau look into this matter to see if some assistance can be provided by the Bureau since this problem is very critical. Please submit a statement for the record.

Mr. NASH. We will do that, Senator.

(The statement referred to follows:)

The Bureau of Indian Affairs is familiar with the serious water shortage at the Mill Creek School in Wyoming. Since this is a public school, we have discussed the problem with local school officials and with personnel of the Office of Education in efforts to find a solution.

The Bureau of Indian Affairs does not have funds in its budget for the construction of such systems for public schools. According to personnel in the Office of Education, application for supplemental assistance under Public Law 815 to construct water supply facilities for public schools cannot be approved unless the construction is on the school site. Since two wells have already been drilled on the school grounds with unsatisfactory results, it would appear unreasonable to drill another well on the school site.

Based on this information it seems evident that the most promising solution is the proposal considered by the tribal council; namely, construction of a pipeline system from the Little Wind River at an estimated cost of $60,000.

Chairman HAYDEN. Will you please submit for the record tables indicating your accelerated public works projects during the past 2 fiscal years?

Mr. NASH. Yes, sir.

(The material referred to follows:)

## ACCELERATED PUBLIC WORKS PROGRAM

### FIRST APPROPRIATION, FISCAL YEAR 1963

Consolidated list of accelerated public works projects for fiscal year 1963, authorized by the Secretary of the Interior from $38 million allocated to the Department of the Interior by the President under authority of Public Law 87–658, approved September 14, 1962:

*Bureau of Indian Affairs*

| State and project | Eligible area and county | Eligibility category | Man-years | Cost | Work description |
|---|---|---|---|---|---|
| | | | | *Thousands* | |
| Alaska: | | | | | |
| Cook Inlet Reservation | Election District No. 2 | 5b Indian | 3 | $50.0 | Construction and improvement of community center at 1 village. |
| Norton Sound Reservation | Election District No. 23 | do | 6 | 95.0 | Construction and improvement of community centers at 2 villages. |
| Southeast Reservation | Election District Nos. 1, 2, 3, and 4 | do | 22 | 400.0 | Construction and improvement of community centers at 6 villages. |
| Total, Alaska | | | 31 | 545.0 | |
| Arizona: | | | | | |
| Colorado River Reservation | Yuma | 5b Indian | 3 | 21.3 | Erosion control and improvement of soil productivity. |
| Fort Apache Reservation | Apache, Gila, and Navajo | do | 22 | 130.0 | Erosion control and improvement of soil productivity, timber stand improvement. |
| Gila River Reservation | Maricopa and Pinal | do | 11 | 82.0 | Road construction, erosion control, and soil improvement. |
| Hopi Reservation | Apache and Coconino | do | 59 | 400.0 | Erosion control and improvement of soil productivity, road construction. |
| Hualapai Reservation | Coconino, Mojave, and Yavapai | do | 4 | 25.0 | Erosion control and improvement of soil productivity. |
| Navajo Reservation: | | | | | |
| Project No. 1 | Apache, Navajo, and Coconino | do | 36 | 400.0 | Grading and surfacing 12 miles of reservation roads. |
| Project No. 2 | Apache | do | 40 | 400.0 | Construction 9 miles primary highway; Ganado south. |
| Project No. 3 | Apache, Navajo, and Coconino | do | 56 | 282.2 | Erosion control and improvement of soil productivity. |
| Project No. 4 | Apache | do | 45 | 200.0 | Timber stand improvement. |
| Project No. 5 | Apache, Navajo, and Coconino | do | 30 | 203.4 | Forest stand improvement, soil and moisture conservation. |
| Papago Reservation | Pima | do | 63 | 400.0 | Forest fire control. |
| Salt River Reservation | Maricopa | do | 6 | 37.8 | Erosion control and improvement of soil productivity, road improvement, and community center. |
| San Carlos Reservation | Gila, Graham, and Pinal | do | 63 | 390.0 | Timber stand improvement, erosion control and improvement of soil productivity, road construction. |
| Total, Arizona | | | 438 | 2,971.7 | |
| California: Round Valley | Ukiah, Mendocino | 5a | 3 | 20.0 | Forest stand improvement. |
| Idaho: | | | | | |
| Coeur d'Alene | Benewah | 5b county | 30 | 200.0 | Erosion control and improvement of soil productivity, 15 miles road improvement. |

| | | | | | |
|---|---|---|---|---|---|
| Fort Hall Reservation | Bannock, Power, Bingham | 5b Indian | 59 | 400.0 | Erosion control and soil productivity, grading and surfacing roads, and community center. |
| Nez Perce Reservation | Clearwater, Nez Perce, Idaho, and Lewis | do | 8 | 47.3 | Erosion control and improvement of soil productivity, timber stand improvement. |
| Total, Idaho | | | 97 | 647.3 | |
| Minnesota: | | | | | |
| Fond du Lac | Hibbing-Virginia, St. Louis | 5a | 4 | 25.0 | Forest stand improvement. |
| Do | Carlton County | 5b Indian | 7 | 67.0 | Grading and surfacing roads, forest stand improvement, and community center. |
| Red Lake, Nett Lake, White Earth, and Leech Lake. | Becker, Beltrami, Clearwater, Itasca, Koochiching, Mahnomew, and St. Louis. | do | 79 | 400.0 | Timber stand improvement, 28 miles road improvement, and community center. |
| Total, Minnesota | | | 90 | 492.0 | |
| Mississippi: Choctaw Reservation | Attala, Leake, Neshoba and Newton. | 5b Indian | 42 | 210.0 | Grading and surfacing reservation roads, erosion control and improvement of soil productivity, timber stand improvement. |
| Montana: | | | | | |
| Fort Belknap Reservation | Blaine and Phillips | do | 4 | 46.5 | Construction and improvement of community center. |
| Blackfeet Reservation | Glacier and Pondera | do | 27 | 165.4 | Grading and surfacing reservation roads, erosion control and improvement of soil productivity, timber stand improvement. |
| Northern Cheyenne Reservation | Big Horn and Rosebud | do | 53 | 276.0 | Timber stand improvement, erosion control and improvement of soil productivity, 5 miles road improvement. |
| Crow Reservation | Big Horn and Yellowstone | do | 10 | 90.8 | Erosion control and improvement of soil productivity, boundary fencing, and road improvement. |
| Flathead Reservation | Flathead, Lake, Missoula, and Sanders. | do | 9 | 50.5 | Grading and surfacing reservation roads, and timber stand improvement. |
| Rocky Boy's Reservation | Chouteau, Hills | do | 32 | 210.0 | Timber stand improvement, erosion control and improvement of soil productivity, 16 miles road grading and surfacing, |
| Total, Montana | | | 135 | 839.2 | |
| Nevada: | | | | | |
| Pyramid Lake Reservation | Washoe | 5b Indian | 18 | 115.8 | Erosion control, improvement of soil productivity, and construction of community center, |
| Walker River Reservation | Mineral | 5b county | 4 | 25.0 | Erosion control and improvement of soil productivity, |
| Total, Nevada | | | 22 | 140.8 | |
| Nebraska: | | | | | |
| Omaha Reservation | Burt, Cuming, and Thurston | 5b Indian | 4 | 25.4 | Erosion control and improvement of soil productivity, boundary fencing, |
| Winnebago Reservation | Dixon and Thurston | do | 4 | 25.4 | Erosion control, soil improvement, and boundary fencing, |
| Total, Nebraska | | | 8 | 50.8 | |

*Bureau of Indian Affairs*—Continued

| State and project | Eligible area and county | Eligibility category | Man-years | Cost | Work description |
|---|---|---|---|---|---|
| | | | | *Thousands* | |
| New Mexico: | | | | | |
| Acoma Reservation | Valencia | 5b Indian | 36 | 400.0 | 13 miles road construction. |
| Isleta Reservation | Bernalillo, Valencia and Torrance | do | 6 | 60.0 | Construction and improvement of community centers. |
| Jemez Reservation | Sandoval | do | 5 | 36.3 | Erosion control and soil improvement, boundary fencing. |
| Jicarilla Reservation | Rio Arriba and Sandoval | do | 14 | 98.0 | Grading and surfacing of roads, erosion control and improvement of soil productivity. |
| Laguna Reservation | Bernalillo, Sandoval, and Valencia | do | 15 | 105.8 | Grading and surfacing roads, erosion control and soil improvement. |
| Mescalero Reservation | Otero | do | 28 | 153.0 | Timber stand improvement, soil and moisture conservation. |
| Nambe Reservation | Santa Fe | 5b county | 4 | 32.0 | Construction and improvement of community centers. |
| Navajo Reservation | McKinley and San Juan | 5b Indian | 66 | 400.0 | Road construction, timber stand improvement, erosion control and improvement of soil productivity. |
| Do | Bernalillo, McKinley, Rio Arriba, San Juan, Sandoval, Socorro, and Valencia. | do | 60 | 400.0 | Erosion control and improvement of soil productivity, 16 miles of grading and surfacing roads. |
| Picuris Reservation | Taos | 5b county | 4 | 32.0 | Construction and improvement of community centers. |
| Pojaque Reservation | Santa Fe | do | 3 | 27.0 | Do. |
| Ramah Reservation | McKinley and Valencia | 5b Indian | 4 | 30.0 | Road improvement. |
| San Ildefonso Reservation | Santa Fe | 5b county | 5 | 25.0 | Erosion control and improvement of soil productivity. |
| San Juan Reservation | Rio Arriba | do | 4 | 55.0 | Erosion control and improvement of soil productivity, and community center. |
| Santa Clara | Rio Arriba, Sandoval, and Santa Fe | 5b Indian | 58 | 386.0 | Erosion control and soil productivity, 11 miles of road construction. |
| Santo Domingo Reservation | Sandoval and Santa Fe | do | 13 | 102.3 | Erosion control and improvement of soil productivity, boundary fencing, and construction and improvement of community centers. |
| Taos Reservation | Taos | 5b county | 12 | 100.0 | Construction and improvement of community centers, erosion control and improvement of soil productivity, boundary fencing. |
| Tesuque Reservation | Santa Fe | do | 3 | 27.0 | Construction and improvement of community centers. |
| Zuni Reservation | McKinley and Valencia | 5b Indian | 17 | 148.8 | Erosion control and improvement of soil productivity, grading and surfacing roads, construction and improvement of community centers. |
| Total, New Mexico | | | 357 | 2,618.2 | |
| North Dakota: | | | | | |
| Fort Berthold Reservation | Dunn, McKenzie, McLean, Mercer, and Mountrail. | 5b Indian | 5 | 35.3 | Grading and surfacing of reservation roads. |
| Standing Rock Reservation | Sioux | do | 8 | 66.8 | Grading and surfacing roads. |
| Fort Totten Reservation | Benson, Nelson, Eddy, and Ramsey | do | 17 | 95.0 | Erosion control and improvement of soil productivity, 5 miles of road grading and surfacing. |

| | | | | | |
|---|---|---|---|---|---|
| Turtle Mountain Reservation | McHenry and Rolette | do | 27 | 180.0 | Erosion control and improvement of soil productivity, 14 miles of road grading and surfacing. |
| Total, North Dakota | | | 57 | 377.1 | |
| Oklahoma: | | | | | |
| Iowa Reservation | Lincoln | 5b county | 10 | 73.5 | Construction and improvement of community centers. |
| Five Civilized Tribes | Adair | do | 12 | 90.0 | Grading and surfacing roads, soil and moisture conservation. |
| | Cherokee | do | 4.5 | 40.0 | Do. |
| | Haskell | do | 2 | 10.0 | Soil and moisture conservation. |
| | Hughes | do | 4 | 20.0 | Do. |
| | Love | do | 1 | 6.0 | Do. |
| | Mayes | do | 5.5 | 55.0 | Grading and surfacing roads, soil and moisture conservation. |
| | McIntosh | do | 25 | 115.0 | Do. |
| | Various eastern counties | do | 59 | 400.0 | Erosion control and improvement of soil productivity, road grading and surfacing. |
| Kickapoo Reservation | Lincoln | do | 10 | 73.5 | Construction and improvement of community centers. |
| Seneca-Cayuga Reservation | Delaware and Ottawa | do | 10 | 50.0 | Erosion control and improvement of soil productivity and community center. |
| Shawnee | Shawnee and Pottawatomie | Substantial unemployment. | 17 | 140.0 | Grading and surfacing roads, soil and moisture conservation. |
| Quapaw Reservation | Ottawa | 5b county | 10 | 50.0 | Erosion control and improvement of soil productivity and community center. |
| Total, Oklahoma | | | 170 | 1,123.0 | |
| Oregon: Warm Springs Reservation | Jefferson and Wasco | 5b Indian | 10 | 64.0 | Timber stand improvement and road improvement. |
| South Dakota: | | | | | |
| Cheyenne River Reservation | Ziebach and Dewey | do | 10 | 68.0 | Erosion control and improvement of soil productivity. |
| Crow Creek-Lower Brule Reservation. | Buffalo, Hughes, Hyde, Lyman, and Stanley. | do | 5 | 38.0 | Grading and surfacing roads. |
| Pine Ridge Reservation | Bennett, Shannon, and Washabaugh | do | 15 | 107.8 | Grading and surfacing roads, erosion control and improvement of soil productivity. |
| Rosebud Reservation | Gregory, Lyman, Melette, Todd, and Tripp. | do | 60 | 400.0 | Erosion control and improvement of soil productivity, road construction. |
| Sisseton Reservation | Codington, Day, Grant, Marshall, and Roberts. | do | 15 | 110.0 | Erosion control and improvement of soil productivity, road improvement. |
| Yankton Reservation | Charles Mix | do | 14 | 100.0 | Erosion control and improvement of soil productivity, replacement and surfacing of drainage features on roads. |
| Total, South Dakota | | | 119 | 823.8 | |

*Bureau of Indian Affairs*—Continued

| State and project | Eligible area and county | Eligibility category | Man-years | Cost | Work description |
|---|---|---|---|---|---|
| | | | | *Thousands* | |
| Utah: | | | | | |
| Navajo | San Juan | 5b Indian | 12 | 85.5 | Erosion control and improvement of soil productivity. |
| Uintah and Ouray Reservation | Duchesne | do | 17 | 140.0 | Road improvement. |
| Total, Utah | | | 29 | 225.5 | |
| Washington: | | | | | |
| Lummi Reservation | Watcom | Substantial unemployment. | 9 | 91.0 | Improvement of community center, erosion control and soil improvement. |
| Quinault Reservation | Aberdeen and Grays Harbor | 5a | 30 | 200.0 | Grading and surfacing roads, timber stand improvement, soil and moisture conservation. |
| Spokane Reservation | Stevens | 5b county | 15 | 95.0 | Grading and surfacing roads, timber stand improvement, erosion control and improvement of soil productivity. |
| Yakima Reservation | Klickitat and Yakima | 5b Indian | 29 | 175.8 | Do. |
| Total, Washington | | | 83 | 561.8 | |
| Wisconsin: | | | | | |
| Lac du Flambeau | Oneida County | 5b county | 2 | 18.0 | Grading and surfacing roads. |
| Northwestern Wisconsin reservations | Various counties | 5b Indian | 27 | 154.0 | Road improvement and timber stand improvement, and community center. |
| Total, Wisconsin | | | 29 | 172.0 | |
| Wyoming: Wind River Reservation | Freemont and Hot Springs | 5b Indian | 6 | 43.8 | Erosion control and improvement of soil productivity. |
| Total, Bureau of Indian Affairs | | | 1,726 | 11,926.0 | |

Consolidated list of accelerated public works projects authorized by the Secretary of the Interior from $25 million allocated to the Department by the President under the Supplementary Appropriation Act, passed May 28, 1963, under authority of Public Law 87–658, approved September 14, 1962:

*Bureau of Indian Affairs*

| State and project | Eligible area and county | Eligibility category | Man-years | Cost | Work description |
|---|---|---|---|---|---|
| | | | | *Thousands* | |
| Arizona: | | | | | |
| Fort Apache Reservation | Apache, Gila, and Navajo | 5b Indian | 50 | $350 | Forest preservation and multiple-use development. |
| Havasupai Reservation | Coconino | do | 3 | 20 | Do. |
| Hualapai Reservation | Coconino and Mojave | do | 7 | 52 | Do. |
| Navajo Reservation: | | | | | |
| Project No. 1 | Apache | do | 56 | 400 | Wheatfields timber access road. |
| Project No. 2 | do | do | 24 | 170 | Forest regeneration, inventory, and stand improvement. |
| Project No. 3 | Apache and Coconino | do | 50 | 350 | Fire prevention and control measures. |
| Project No. 4 | Apache | do | 36 | 250 | Various timber access roads. |
| Project No. 5 | Navajo and Coconino | do | 14 | 100 | Various forest truck trails. |
| San Carlos Reservation | Gila and Graham | do | 36 | 250 | Forest preservation and multiple-use development. |
| Total Arizona | | | 276 | 1,942 | |
| California: Hoopa Valley Reservation | Eureka, Humboldt | LS | 14 | 100 | Do. |
| Colorado: Southern Ute Reservation | Pagosa Springs, Archuleta | LS | 7 | 50 | Do. |
| Idaho: | | | | | |
| Couer d'Alene Reservation | Benewah | 5b county | 4 | 27 | Do. |
| Fort Hall Reservation | Bannock, Power, Bingham, and Caribou. | 5b Indian | 11 | 75 | Do. |
| Nez Perce Reservation | Clearwater, Idaho, and Lewis | do | 9 | 60 | Do. |
| Total Idaho | | | 24 | 162 | |
| Michigan: | | | | | |
| L'Anse Reservation | Baraga | 5b county | 9 | 50 | Do |
| Hannahville Reservation | Menominee | do | 1 | 5 | Do. |
| Bay Mills Reservation | Chippewa | do | 2 | 10 | Do. |
| Total Michigan | | | 12 | 65 | |

*Bureau of Indian Affairs*—Continued

| State and project | Eligible area and county | Eligibility category | Man-years | Cost | Work description |
|---|---|---|---|---|---|
| | | | | *Thousand* | |
| Minnesota: | | | | | |
| Fond du Lac Reservation | Carlton | 5b county | 3 | $22 | Forest preservation and multiple-use development |
| Grand Portage Reservation | Cook | do | 7 | 52 | Do. |
| Mille Lacs Reservation | Mille Lacs | do | 12 | 80 | Do. |
| Northern Minnesota reservations: | | | | | |
| Project No. 1 | Becker, Beltrami, Clearwater, Itasca, Koochiching, Cass, Mahnomew, and St. Louis. | 5b Indian | 28 | 194 | Forest regeneration and stand improvement. |
| Project No. 2 | Clearwater | do | 55 | 380 | Wildlife rehabilitation. |
| Total Minnesota | | | 105 | 728 | |
| Mississippi: Choctaw Reservation | Leake, Neshoba, and Newton | 5b Indian | 6 | 40 | Forest prevention and multiple-use development. |
| Montana: | | | | | |
| Fort Belknap Reservation | Blaine and Phillips | do | 15 | 105 | Do. |
| Blackfeet Reservation: | | | | | |
| Project No. 1 | Glacier and Pondera | do | 13 | 90 | Visitor-use facilities. |
| Project No. 2 | Glacier | do | 44 | 310 | Road construction. |
| Project No. 3 | do | do | 6 | 40 | Forestry warehouse. |
| Northern Cheyenne Reservation | Big Horn and Rosebud | do | 18 | 125 | Forest preservation and multiple-use development. |
| Crow Reservation | Big Horn | do | 15 | 105 | Do. |
| Flathead Reservation | Flathead, Lake, Missoula, and Sanders | do | 23 | 162 | Do. |
| Fort Peck Reservation | Roosevelt and Valleys | do | 9 | 60 | Do. |
| Rocky Boy's Reservation | Chouteau and Hills | do | 8 | 55 | Do. |
| Total, Montana | | | 151 | 1,052 | |
| Nebraska: | | | | | |
| Omaha Reservation | Cuming and Thurston | 5b Indian | 9 | 63 | Do. |
| Winnebago Reservation | Dixon and Thurston | do | 5 | 35 | Do. |
| Total, Nebraska | | | 14 | 98 | |
| New Mexico: | | | | | |
| Acoma Reservation | Valencia | 5b Indian | 16 | 113 | Do. |
| Isleta Reservation | Bernalillo, Valencia, and Torrance | do | 12 | 85 | Do. |
| Jemez Reservation | Sandoval | do | 10 | 71 | Do. |
| Jicarilla Reservation | Rio Arriba and Sandoval | do | 13 | 88 | Do. |
| Laguna Reservation | Valencia | do | 7 | 50 | Do. |
| Mescalero Reservation | Otero | do | 14 | 97 | Do. |
| Navajo Reservation | McKinley | do | 43 | 300 | Do. |
| San Ildefonso Reservation | Santa Fe | 5b county | 2 | 10 | Do. |
| Santa Clara Reservation | Rio Arriba, Sandoval, and Santa Fe | 5b Indian | 5 | 35 | Do. |
| Tesuque Reservation | Santa Fe | 5b county | 2 | 10 | Do. |

| | | | | | |
|---|---|---|---|---|---|
| Zuni Reservation | McKinley | 5b Indian | 30 | 208 | Do. |
| Total, New Mexico | | | 154 | 1,067 | |
| North Carolina: Eastern Cherokee Reservation. | Jackson and Swain | 5b Indian | 43 | 300 | Do. |
| North Dakota: | | | | | |
| Fort Berthold Reservation | Dunn, McKenzie, McLean, Mercer, and Mountrail. | do | 7 | 50 | Do. |
| Turtle Mountain Reservation | Rolette | do | 34 | 236 | Do. |
| Total, North Dakota | | | 41 | 286 | |
| Oklahoma: Five Civilized Tribes: | | | | | |
| Project No. 1 | Adair, Cherokee, Haskell, and McIntosh | 5b county | 50 | 350 | Do. |
| Project No. 2 | Latimer and Le Flore | do | 29 | 200 | Bengal Talihina access road. |
| Project No. 3 | Atoka, Coal, Choctaw, Bryan, Delaware, McCurtain, Pontotoc, Pittsburg, Pushmataha and Sequoyah. | do | 17 | 200 | Forest improvement and fire protection, visitor-use facilities. |
| Total Oklahoma | | | 96 | 750 | |
| Oregon: Warm Springs Reservation | Jefferson and Wasco | 5b Indian | 29 | 200 | Forest preservation and multiple-use development. |
| South Dakota: | | | | | |
| Pine Ridge Reservation | Bennett, Shannon, and Washabaugh | do | 19 | 130 | Do. |
| Rosebud Reservation | Gregory, Melette, Todd, and Tripp | do | 11 | 80 | Do. |
| Total South Dakota | | | 30 | 210 | |
| Utah: Uintah and Ouray Reservation | Duchesne | 5b Indian | 3 | 20 | Do. |
| Washington: | | | | | |
| Colville Reservation | Ferry and Okanogan | do | 36 | 250 | Do. |
| Quinault Reservation | Aberdeen and Grays Harbor | 5a | 35 | 245 | Do. |
| Quillayute Reservation | Clallum | 5b county | 3 | 18 | Do. |
| Yakima Reservation | Yakima | 5b Indian | 36 | 250 | Do. |
| Total Washington | | | 110 | 763 | |
| Wisconsin: | | | | | |
| Potawatomi Reservation | Forest | 5b county | 2 | 15 | Do. |
| Mole Lake Reservation | do | do | 2 | 14 | Do. |
| Northwestern Wisconsin Reservations | Burnett, Bayfield, Ashland, Sawyer, Vilas, and Polk. | 5b Indian | 21 | 150 | Do. |
| Total, Wisconsin | | | 25 | 179 | |
| Wyoming: Wind River reservation | Freemont and Hot Springs | 5b Indian | 13 | 88 | Do. |
| Total, Bureau of Indian Affairs | | | 1,150 | 8,100 | |

### Wind River Reservation Construction Charges

Senator McGee. During these hearings last year I was advised that a report was being completed by the Bureau regarding certain assessments against non-Indian owners for construction charges of the irrigation project on the Wind River Reservation. I was advised that this report was received by the Bureau on November 13, 1962, that it was being tabulated and analyzed, that the findings would have a bearing on the Bureau's report on Senate Joint Resolution 6, and that these findings were to be completed in the very near future.

Will you advise me of the present status of this report?

Mr. Nash. The Department's proposed report on Senate Joint Resolution 6 was sent to Bureau of the Budget February 24, 1964, for clearance. It will be submitted to the committee as soon as Budget clearance is received.

### Road Construction

Chairman Hayden. There is a request for an appropriation of $17 million in fiscal year 1965 for liquidation of contract authorizations in connection with the Federal-aid highway contracts. The justification statement will be included in the record.

(The justification statement referred to follows:)

*Road construction—Contract authorization and liquidation program*

FISCAL YEAR 1963

| | Contract authority available | Obligations | Unliquidated obligations prior year | Obligations | Expenditures | Unliquidated obligations carried forward |
|---|---|---|---|---|---|---|
| Federal-aid highway roads | $13,155,936 | $12,180,799 | $7,041,315 | $19,222,114 | $14,024,654 | $5,197,460 |
| Navajo-Hopi, Routes 1 and 3 | 4,018,003 | 2,901,810 | 2,910,452 | 5,812,262 | 4,236,836 | 1,575,426 |
| Total | 17,173,939 | 15,082,609 | 9,951,767 | 25,034,376 | 18,261,490 | [1] 6,772,886 |

FISCAL YEAR 1964

| | | | | | | |
|---|---|---|---|---|---|---|
| Federal-aid highway roads | $16,970,165 | $16,970,165 | $5,197,460 | $22,167,625 | $13,582,554 | $8,585,071 |
| Navajo-Hopi, Routes 1 and 3 | 1,116,193 | 1,116,193 | 1,575,426 | 2,691,619 | 2,691,619 | |
| Total | 18,086,358 | 18,086,358 | 6,772,886 | 24,859,244 | 16,274,173 | [2] 8,585,071 |

FISCAL YEAR 1965

| | | | | | | |
|---|---|---|---|---|---|---|
| Federal-aid highway roads | $16,000,000 | $16,000,000 | $8,585,071 | $24,585,071 | $17,000,000 | $7,585,071 |
| Navajo-Hopi, Routes 1 and 3 | | | | | | |
| Total | 16,000,000 | 16,000,000 | 8,585,071 | 24,585,071 | 17,000,000 | 7,585,071 |

[1] Available cash for liquidation is $1,274,173; balance of $5,498,713 is unfunded.
[2] Unfunded obligations.

*Status of cash appropriation for liquidation of contract authorization*

| | 1963 | 1964 | 1965 |
|---|---|---|---|
| Appropriation | $16,000,000 | $15,000,000 | $17,000,000 |
| Transfer from National Park Service | 2,000,000 | | |
| Transfer to General Services Administration | −4,972 | | |
| Unexpended balance brought forward | 1,540,635 | 1,274,173 | |
| Total available | 19,535,663 | 16,274,173 | 17,000,000 |
| Less: Expenditures | 18,261,490 | 16,274,173 | 17,000,000 |
| Unexpended balance | 1,274,173 | | |

JUSTIFICATION

*Road construction (liquidation of contract authorization), $17 million*

LIQUIDATION PROGRAM (CASH)

*Liquidation of contract authorization (cash program).—1963, $18,261,490; 1964, $16,274,173; 1965, $17 million*

The estimate for the road construction cash program for fiscal year 1965 is $17 million. This amount is required to liquidate $8,585,071 of unfinanced prior year obligations which come due for payment during fiscal year 1965, as well as the 1965 obligations that will come due for payment during the 1965 fiscal year. This leaves $7,585,071 of unpaid obligations at the end of fiscal year 1965.

The balance of unpaid obligations at the close of the fiscal year has been declining as follows: 1961, $13,316,517; 1962, $9,951,767; 1963, $6,772,886; 1964, $8,585,071 (unfunded); and 1965, $7,585,071 (estimate). This decline is caused by the fact that engineering preparation surveys and plans are catching up with the program. These completed plans permit contract awards and project starts earlier in the fiscal year. Work on force account projects requires cash before and while the work is going on rather than after completion of contracts.

CONTRACT AUTHORIZATION PROGRAM (OBLIGATIONS)

*1. Federal-Aid Highway Act (obligational program).—1963, $15,082,609; 1964, $18,086,358; 1965, $16 million*

The estimate for the road construction obligational program for fiscal year 1965 is $16 million. This justification proposes that $2 million of the $18 million contract authorization for fiscal year 1965 shall be reserved.

The Federal-Aid Highway Act of 1962 authorized in section 2, "for the purpose of carrying out the provisions of title 23 of the United States Code, the appropriations for Indian reservation roads and bridges, $16,000,000 for the fiscal year ending June 30, 1964, and $18,000,000 for the fiscal year ending June 30, 1965."

Title 23 of the United States Code provides, in section 101, the definition of Indian reservation roads; and in section 203, that funds authorized for Indian reservation roads shall be available for contract on a date not earlier than 1 year preceding the beginning of the fiscal year for which authorized; and that the Secretary of the department charged with the administration of such funds is granted authority to incur obligations, approve projects, and enter into contracts under such authorizations, and his action in doing so shall be deemed a contractual obligation of the United States for the payment of costs thereof.

Tax-free Indian lands are not served adequately by State or country roads. There are reservations where county governments do not exist, and many instances where the counties are not financially or administratively able to carry on the road function. As a result, Congress has recognized that the improvement and construction of roads and bridges serving Indian lands is a Federal responsibility, and it has authorized the above-cited program of road construction for fiscal years 1964 and 1965.

This proposed $16 million obligation is required to provide adequate roads on the reservations to serve the increased school building, education, economic development, and health programs. These increased programs will generate a greater volume of traffic on the reservations and need dependable transportation facilities. The Bureau's 1964 program includes $66,118,250 for education and $52,800,000 for new buildings and utilities on the reservations. Better school attendance is a very important goal of the education and building program.

Improved all-weather roads to both the old and the new schools are essential to that goal; they are needed to assure daily safe operation of schoolbuses and the transportation of supplies and equipment. The Bureau's road system is a defined system of local roads to serve the people which in turn services the schools and health centers of the reservations. The improvement of this system must keep pace with the growing communities, increasing school facilities, and the trend toward the use of day schools rather than boarding schools.

The following is a detailed description of the 1965 fiscal year program based on the total estimated obligations to be incurred during 1965 fiscal year:

| | Miles | Amount |
|---|---|---|
| (*a*) Grading and draining | 482.0 | $7,348,000 |
| (*b*) Surfacing | 556.1 | 6,914,000 |
| (*c*) Bridge construction | [1] 1,130.0 | 522,000 |
| (*d*) Future surveys and plans | 605.5 | 1,216,000 |
| Total | | 16,000,000 |

[1] Feet.

(*a*) *Grading and draining, $7,348,000.*—This feature covers clearing rights-of-way, installing drainage structures, and constructing a roadbed by excavating high ground and filling low ground. This results in a well-drained earth embankment with easy grades and flat curves, built so that the roadbed will provide a firm foundation for the surface course. The estimate covers 482 miles of grading and draining.

(*b*) *Surfacing, $6,914,000.*—This estimate covers the surfacing of 556.1 miles of roads; 228.1 miles will have a base course and surface course of local materials such as gravel. The remaining 328 miles are on the heavier traffic roads and will have the gravel surface stabilized with bituminous material.

(*c*) *Bridge construction, $522,000.*—This covers the construction of 1,130 running feet of bridges. Most of this will replace wornout spans now in a dangerous condition.

(*d*) *Future surveys and plans, $1,216,000.*—This covers preliminary engineering, surveys, and preparation of plans and specifications for the construction of roads and bridges. The estimate covers surveys and plans for 605.5 miles of roads.

The average estimated cost for grading and draining is $15,244 per mile; for gravel surfacing $8,346; for bituminous surfacing, including base course, $15,255 per mile; for bridge construction $462 per running foot; and for future surveys and plans $2,008 per mile.

The 1965 program is distributed as follows:

(1) *Aberdeen area, $2,100,000.*—This area program totals 67.7 miles of grading and draining, 80.9 miles of surfacing of which 46.8 miles are bituminous surfaced, and 294 feet of bridge construction. This construction is located as follows: Nebraska—Winnebago Reservation; North Dakota—Turtle Mountain Reservation, Fort Totten Reservation, Fort Berthold Reservation, and Standing Rock Reservation; and South Dakota—Cheyenne River Reservation, Crow Creek Reservation, Lower Brule Reservation, Pine Ridge Reservation, Rosebud Reservation, and Sisseton Reservation.

(2) *Anadarko area, $500,000.*—This area program totals 8 miles of grading and draining, 17 miles of surfacing. This construction is located as follows: Oklahoma—Cheyenne and Arapaho Reservation, Kiowa Reservation, Pawnee Reservation, and Shawnee Reservation.

(3) *Billings area, $1,250,000.*—This area program totals 51.9 miles of grading and draining, 61.1 miles of surfacing of which 35.1 miles are bituminous surfaced. This construction is located as follows: Montana—Blackfeet Reservation, Crow Reservation, Flathead Reservation, Fort Belknap Reservation, Rocky Boys Reservation, Northern Cheyenne Reservation, and Fort Peck Reservation; Wyoming—Wind River Reservation.

(4) *Gallup area, $4,900,000.*—This area program totals 165.3 miles of grading and draining, 166.0 miles of surfacing of which 85 miles are bituminous surfaced, and 490 feet of bridge construction. This construction is located as follows: Arizona—Navajo Reservation; New Mexico—Navajo Reservation, Zuni Reservation, Jicarilla Reservation, Mescalero Reservation and United Pueblos Reservation; Colorado—Consolidated Ute Reservation.

(5) *Juneau area, $650,000.*—This area program totals 10 miles of street and road. This construction is located in Alaska and includes streets at Barrow.

(6) *Minneapolis area, $600,000.*—This area program totals 31 miles of grading and draining, 25.5 miles of bituminous surfacing, and 20 feet of bridge construction. This construction is located as follows: Minnesota—Red Lake Reservation and White Earth Reservation; Wisconsin—Lac du Flambeau Reservation, Lac Courte Orielles, St. Croix, and Bad River Reservation.

(7) *Muskogee area, $500,000.*—This area program totals 19.8 miles of grading and draining, 19.5 miles of surfacing of which 10 miles are bituminous surfaced and 150 feet of bridge construction. This construction is located as follows: Mississippi—Choctaw Reservation; Oklahoma—Five Civilized Tribes Reservation.

(8) *Phoenix area, $2,800,000.*—This area program totals 76 miles of grading and draining, 55.2 miles of surfacing of which 24 miles are bituminous surfaced and 118 feet of bridge construction. This construction is located as follows: Arizona—Colorado River Reservation, Fort Apache Reservation, Hopi Reservation, Papago Reservation, Pima Reservation, San Carlos Reservation, and Salt River Reservation; Nevada—Duck Valley Reservation and Walker River Reservation; Utah—Uintah and Ouray Reservations.

(9) *Portland area, $1,800,000.*—This area program totals 42.1 miles of grading and draining, 103.1 miles of surfacing of which 71 miles are bituminous surfaced, and 58 feet of bridge construction. This construction is located as follows: Idaho—Fort Hall Reservation and Coeur d'Alene Reservation; Oregon—Umatilla Reservation and Warm Springs Reservation; Washington—Colville Reservation, Quinault Reservation, and Yakima Reservation.

(10) *Sacramento area, $600,000.*—This area program totals 7.8 miles of grading, draining, and 7.8 miles of surfacing of which 3.6 miles are bituminous surfaced. This construction is located as follows: California—Sulphur Bank Rancheria, Round Valley Reservation, Hoopa Valley Reservation, Big Sandy Rancheria, and Santa Rosa Rancheria.

(11) *Washington area, $300,000.*—This area program totals 2.4 miles of grading and draining, 10 miles of bituminous surfacing, and central office supervision of the road construction program. This program is located as follows: Florida—Brighton Reservation; North Carolina—Cherokee Reservation; Washington, D.C.

*Federal-aid highway roads—Area budget classification, breakdown, 1965*

| Area | Total | Grade and draining | | Surfacing | | Bridges | | Surveys and plans | |
|---|---|---|---|---|---|---|---|---|---|
| | | Miles | Amount | Miles | Amount | Feet | Amount | Miles | Amount |
| Aberdeen | $2,100,000 | 67.7 | $1,015,000 | 80.9 | $815,000 | 294 | $95,000 | 120.0 | $175,000 |
| Anadarko | 500,000 | 8.0 | 182,000 | 17.0 | 288,000 | ..... | ..... | 15.0 | 30,000 |
| Billings | 1,250,000 | 51.9 | 546,000 | 61.1 | 654,000 | ..... | ..... | 42.0 | 50,000 |
| Gallup | 4,900,000 | 165.3 | 2,321,000 | 166.0 | 2,006,000 | 490 | 306,000 | 138.5 | 267,000 |
| Juneau | 650,000 | 10.0 | 290,000 | 10.0 | 288,000 | ..... | ..... | 18.0 | 72,000 |
| Minneapolis | 600,000 | 31.0 | 321,000 | 25.5 | 222,000 | 20 | 5,000 | 45.0 | 52,000 |
| Muskogee | 500,000 | 19.8 | 297,000 | 19.5 | 125,000 | 150 | 41,000 | 36.0 | 37,000 |
| Phoenix | 2,800,000 | 76.0 | 1,510,000 | 55.2 | 1,000,000 | 118 | 50,000 | 85.0 | 240,000 |
| Portland | 1,800,000 | 42.1 | 446,000 | 103.1 | 1,118,000 | 58 | 25,000 | 81.0 | 211,000 |
| Sacramento | 600,000 | 7.8 | 310,000 | 7.8 | 230,000 | ..... | ..... | 11.0 | 60,000 |
| Washington | 300,000 | 2.4 | 110,000 | 10.0 | 168,000 | ..... | ..... | 14.0 | 22,000 |
| Total | 16,000,000 | 482.0 | 7,348,000 | 556.1 | 6,914,000 | 1,130 | 522,000 | 605.5 | 1,216,000 |

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $15,082,609 | $18,086,358 | $16,000,000 | −$2,086,358 |
| Unobligated balance brought forward | −17,173,939 | −18,086,358 | −18,000,000 | +86,358 |
| Unobligated balance carried forward | 18,086,358 | 18,000,000 | 20,000,000 | +2,000,000 |
| Unobligated balance lapsing | 4,972 | | | |
| Contract authorization (new) (permanent) | 16,000,000 | 18,000,000 | 18,000,000 | |
| BUREAU OF INDIAN AFFAIRS | | | | |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 4,427,102 | 5,255,826 | 5,321,000 | +65,174 |
| 12 Personnel benefits | 254,966 | 313,407 | 318,000 | +4,593 |
| 21 Travel and transportation of persons | 220,388 | 225,232 | 235,000 | +9,768 |
| 22 Transportaion of things | 79,695 | 80,847 | 81,000 | +153 |
| 23 Rent, communication, and utilities | 190,610 | 202,280 | 202,000 | −280 |
| 24 Printing and reproduction | 7,446 | 7,550 | 8,000 | +450 |
| 25 Other services | 497,153 | 476,103 | 476,000 | −103 |
| Services of other agencies | 191 | 5,414 | 5,000 | −414 |
| 26 Supplies and materials | 1,851,243 | 2,508,526 | 2,509,000 | +474 |
| 31 Equipment | 1,581,142 | 1,640,144 | 1,640,000 | −144 |
| 32 Lands and structures | 5,999,112 | 7,301,833 | 5,153,000 | −2,148,833 |
| 41 Grants, subsidies and contributions | 1,498 | 1,753 | 2,000 | +247 |
| 42 Insurance claims and indemnities | 719 | 200 | | −200 |
| Subtotal | 15,111,265 | 18,019,115 | 15,950,000 | −2,069,115 |
| Deduct quarters and subsistence charges | 56,412 | 49,706 | 50,000 | −294 |
| Total, Bureau of Indian Affairs | 15,054,853 | 17,969,409 | 15,900,000 | −2,069,409 |
| ALLOCATION TO BUREAU OF PUBLIC ROADS, DEPARTMENT OF COMMERCE | | | | |
| 11 Personnel compensation | 40,000 | 47,000 | 49,000 | +2,000 |
| 12 Personnel benefits | 2,000 | 2,000 | 2,000 | |
| 21 Travel and transportation of persons | 13,000 | 13,000 | 13,000 | |
| 22 Transportation of things | 2,000 | 2,000 | 2,000 | |
| 23 Rent, communications, and utilities | 2,000 | 2,000 | 2,000 | |
| 25 Other services | 18,756 | 19,000 | 19,000 | |
| Services of other agencies | 16,000 | 16,000 | 16,000 | |
| 26 Supplies and materials | 1,000 | 1,000 | 1,000 | |
| 32 Lands and structures | | 14,949 | | −14,949 |
| Subtotal | 94,756 | 116,949 | 104,000 | −12,949 |
| Deduct portion of foregoing originally charges to object classification 32 | 67,000 | | 4,000 | −4,000 |
| Total, Bureau of Public Roads | 27,756 | 116,949 | 100,000 | −16,949 |
| Total obligations | 15,082,609 | 18,086,358 | 16,000,000 | −2,086,358 |

Chairman HAYDEN. Do you have any particular comment with regard to this program?

Mr. NASH. Yes, sir. It is a very badly needed program, the improvement of economic conditions, living conditions, and the education programs on the reservations are all dependent upon the road-building program. The $17 million is needed to liquidate obligations that we have already undertaken and we must either have the full amount or slowdown in our new obligations for road construction. And I would hope that would not happen.

ROAD CONSTRUCTION BY CONTRACT

Chairman HAYDEN. Last year the conferees urged that the Bureau of Indian Affairs return to road construction through contracts with private firms with the requirement that the successful bidder employ primarily Indian labor from the reservation on which the road

construction is to be accomplished. What success have you had with this type of operation?

Mr. NASH. Pursuant to the committee's instructions, we made a study of the contract method of building roads versus the force account method of building roads, and that study has been completed and we have sent it over to the committee.

In summary, what it shows, Mr. Chairman, is that the force account method of roadbuilding or construction generally is not more expensive than the contract method and is eight times as helpful when it comes to Indian income and employment. The Indian share of the construction dollar is about 4 cents when construction is done by a contractor and is almost 32 cents under force account. Now there are many reasons for this, but I think perhaps, the principal one is that any established contractor moving around from one construction site to another likes to take his experienced crew with him and, therefore, we can write in all the preferences for Indian employment that the law allows in our contract and we can talk to the contractor and we can help him find people, but the Indian just does not get the jobs. When we do it ourselves, we are able to find the Indians. We are able to find the help. We get our construction done on schedule and, as the study will show, there is a small percentage in savings to the Government. I do not claim it is a significant amount, Mr. Chairman.

Chairman HAYDEN. Do you have that report?

Mr. NASH. Yes, sir.

Chairman HAYDEN. I will include that report in the record.

(The report referred to follows:)

PRELIMINARY REPORT ON 1963 BUREAU ROAD CONSTRUCTION COSTS

Report No. 181 of the Senate Appropriations Committee of the 88th Congress, 1st session, states on page 7 the following:

"The committee agrees with the objective of the Bureau of Indian Affairs to create greater employment for Indian people. However, it is the committee's view that this objective can and should be obtained at no greater cost than accomplishment of road construction through the prior method of contracting for necessary work.

"The committee believes that the Bureau of Indian Affairs should explore very carefully the return to road construction through contracts with firms in that business; * * *".

The Bureau has conducted a study of 1963 construction projects covering a total of 148 projects on 61 Indian reservations located in 21 States. Of these projects, 73 were accomplished by contract and 75 by the force account method. Each of 10 areas submitted reports on total expenditures for contract and force account projects, also listing overhead and engineering expense. Overhead was prorated to the categories of engineering, contract and force account expenditures on a dollar valuation, except that overhead was charged to contract expenditures on a 50-percent ratio only. All of the appropriation which was authorized for Indian Bureau road construction was charged into these costs. The engineering costs are the same as those incurred by a State highway department in making surveys and designs awarding contracts and performing the construction engineering and inspection on State highway projects, most of which are by contract.

Individual project reports were made on completed force account projects. These reports contained a detailed breakdown of items of work such as would be shown on a contract bid schedule. The actual quantities of work performed on each item was shown and these quantities were multiplied by the unit cost which successful contractors had bid on this item. The total of these costs was considered to be the amount that the job would have cost by contract.

These reports also showed the total actual obligations incurred against the project, including a share of the overhead expense. This was the total actual cost to the Bureau except for a use charge on equipment purchased by the Bureau.

The equipment used on this work was from three sources: 1. Rental equipment on which the rent was included in the project cost directly. 2. Bureau purchased equipment on which the use was charged as an extra depreciation item. 3. Equipment acquired from Federal surplus on which there was no cost to the Bureau. However, even though there was no direct cost, the same equipment use charge was made as for equipment purchased by the Bureau.

FORCE ACCOUNT PROJECTS

The force account projects reported on were of two general types, the first of which selected the labor producing items of the project for force account operations, and left the heavy mechanical equipment items for contract, these force account projects were mostly clearing right-of-way and fencing, and the heavy grading and paving on these projects was contracted. The second type consisted of projects on which the Bureau performed all of the work.

Finished projects in the second category tended to be small, because the Bureau started to tool up for this work in 1962 and did not have sufficient equipment for larger projects. A list of some of the projects in the second category is attached. It will be noted from this list that there was considerable variation in the contract force account relationship. The projects vary from force account costs, which are 30 percent over estimated contract costs, to force account costs which are 27 percent under estimated contract costs.

When all of the completed force account projects on which reports were made were considered, we derived the following:

| | | |
|---|---|---|
| 1. | Total estimated contract cost | $2, 564, 303 |
| 2. | Direct obligations including overhead | $2, 196, 524 |
| 3. | Depreciation charge on Bureau purchased equipment | $150, 224 |
| 4. | Sum of lines 2 and 3 | $2, 346, 748 |
| 5. | Use charge on free surplus | $138, 300 |
| 6. | Sum of lines 4 and 5 | $2, 485, 048 |
| 7. | Estimated contract cost (line 1), less Bureau cost (line 4) | $217, 555 |
| 8. | Estimated contract cost (line 1), less Bureau cost (line 6) | $79, 255 |
| 9. | Bureau cost (line 4) is 8.45 percent less than estimated contract cost: $217,555 divided by $2,564,303 | *Percent* 8. 45 |
| 10. | Bureau cost plus surplus equipment use charge (line 6) is 3.1 percent less than estimated contract cost: $79,255 divided by $2,564,303 | 3. 1 |

The variations in the individual projects so far as comparison of force account and contract costs are concerned makes it clear that the percentages developed above are simply the results obtained from a particular study. They do appear to support the Bureau contention that Bureau roads force account work can produce work by force account at costs comparable to contract prices.

Advantages to the force account method in road work accrue from the amount of heavy construction equipment used. The fact that surplus equipment and new equipment purchased at wholesale prices, as compared to the retail prices contractors pay, is an advantage that would not extend to other construction fields such as housing.

*Partial list of individual force account projects*

| Project | Contract basis construction estimate | Force account cost | Percent (+) over (−) under |
|---|---|---|---|
| Hawley Lake | $450,450 | $409,818 | −9.0 |
| Holbrook Road | 67,569 | 64,881 | −4.0 |
| Salt River | 51,450 | 56,368 | +8.0 |
| Hot Spring Deschutes | 58,365 | 60,227 | +3.2 |
| Shiprock | 87,799 | 94,482 | +5.0 |
| Choctaw | 43,230 | 31,513 | −27.0 |
| 5 Civilized Tribes | 39,202 | 29,444 | −24.9 |
| 5 Civilized Tribes | 40,026 | 36,136 | −9.7 |
| 5 Civilized Tribes | 30,850 | 31,886 | +3.4 |
| 5 Civilized Tribes | 91,946 | 85,384 | −7.1 |
| Shawnee | 49,291 | 64,364 | +30.5 |
| Hopland | 58,633 | 67,048 | +14.3 |
| Quartz Valley | 94,267 | 107,841 | +11.4 |
| Round Valley | 30,338 | 34,433 | +11.4 |
| Harney Pond Road | 78,688 | 81,625 | +3.7 |
| Little Eagle Standing Rock | 59,338 | 58,741 | −1.0 |
| Turtle Mountain | 43,626 | 45,383 | +4.0 |
| Turtle Mountain | 37,726 | 36,791 | −3.0 |
| Pine Ridge | 34,704 | 34,514 | −1.0 |
| Rocky Boys | 29,621 | 26,077 | −12.0 |
| Flat Head | 55,823 | 46,023 | −18.0 |
| Crow | 70,673 | 57,226 | −18.0 |
| North Cheyenne | 38,400 | 34,293 | −10.0 |

## 1963 Employment Study of Bureau of Indian Affairs Construction Projects, November 1963

This report is based on information from 224 Bureau of Indian Affairs construction projects totaling (58 million and located on Indian reservations in 15 States. It includes construction projects from the Branches of Land Operations, Plant Management, Plant Design and Construction, and Roads.

*Summary*

| | Contract projects (percent) | Force account projects (percent) |
|---|---|---|
| Percent of contract or project amount paid to on-site labor | 26.5 | 42.3 |
| Percent of on-site labor paid to Indians | 14.0 | 73.8 |
| Percent of contract or project amount paid to Indians | 3.7 | 31.2 |

The contractors' certified payrolls showed the following ratios of mounts paid to various groups:

| | *Percent of payroll amount* |
|---|---|
| Unskilled labor | 19.6 |
| Skilled labor | 80.4 |
| Indian unskilled | 6.7 |
| Indian skilled | 7.3 |
| All Indian labor | 14.0 |

The BIA construction dollar, that is available for either contract or force account construction, will pay less than 4 cents to Indians under a contract or 31 cents to Indians if programed to a force account project.

*Bureau of Indian Affairs, 1963 employment study—Special reports A and B, November 1963*

| | Construction programs | | | | |
|---|---|---|---|---|---|
| | Branch of— | | | | Total, all branches |
| | Land operations | Plant management | Plant design and construction | Roads | |
| Number of contracts studied [1] | 16 | 23 | 57 | 40 | 136 |
| Total amount of contracts | $961,000 | $412,000 | $43,207,000 | $8,048,000 | $52,628,000 |
| Other ratios from completed projects: | | | | | |
| Number of contracts | 20 | 30 | 5 | 39 | 94 |
| Total amount of contracts | $1,321,616 | $338,389 | $3,554,992 | $5,497,721 | $10,712,718 |
| Number of force account projects | 13 | 31 | 5 | 39 | 88 |
| Total project amount | $842,000 | $911,769 | $1,182,065 | $3,110,000 | $6,045,834 |
| Percent of contract payroll paid to— [1] | | | | | |
| Unskilled labor | 34.4 | 28.3 | 18.8 | 18.2 | 19.6 |
| Skilled labor | 65.6 | 71.7 | 81.2 | 81.8 | 80.4 |
| Indian unskilled | 6.7 | 2.7 | 7.8 | 5.0 | 6.7 |
| Indian skilled | 5.4 | 2.0 | 7.2 | 8.3 | 7.3 |
| All Indian labor | 12.1 | 4.7 | 15.0 | 13.3 | 14.0 |
| Payrolls—completed contract projects: | | | | | |
| Number of contracts | 20 | 30 | 5 | 39 | 94 |
| Total of contract amounts | $1,321,616 | $338,389 | $3,554,992 | $5,497,721 | $10,712,718 |
| Total of certified payrolls | $221,919 | $83,007 | $932,995 | $1,603,000 | $2,840,921 |
| Percent to payrolls | 16.8 | 24.5 | 26.2 | 29.2 | 26.5 |
| Payrolls—completed force account projects: | | | | | |
| Number of projects | 13 | 31 | 5 | 39 | 88 |
| Total of project amounts | $842,000 | $911,769 | $1,182,065 | $3,110,000 | $6,045,834 |
| Total of payrolls | $361,101 | $464,912 | $463,965 | $1,263,156 | $2,553,134 |
| Percent of project amount to payrolls | 42.8 | 51.0 | 39.3 | 40.5 | 42.3 |
| Amount of payrolls paid to Indians | $262,314 | $272,611 | $248,726 | $1,098,861 | $1,882,512 |
| Percent of payrolls to Indians | 72.8 | 58.7 | 53.7 | 87.0 | 73.8 |

[1] Tabulation from 4 consecutive weekly payrolls during the most active construction period.

Ratios of contract or project amounts paid to all labor, and to Indian labor, by activity:

[In percent]

| | Land operations | | Plant management | | Plant design and construction | | Roads | | Consolidated | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Contract | Force account | Contract | Force account | Contract | Force account | Contract | Force account | Contract | Force account |
| Percent of contract or project amount paid to on-site labor | 16.8 | 42.8 | 24.5 | 51.0 | 26.2 | 39.3 | 29.2 | 40.5 | 26.5 | 42.3 |
| Percent of on-site labor paid to Indians | 12.1 | 72.8 | 4.7 | 58.7 | 15.0 | 53.7 | 13.3 | 87.0 | 14.0 | 73.8 |
| Percent of contract or project amount paid to Indians | 2.0 | 31.2 | 1.2 | 30.0 | 3.9 | 21.1 | 3.9 | 35.3 | 3.7 | 31.2 |

Chairman HAYDEN. What percentage of your road construction work is accomplished through force account and what percentage is through contracts with private road-construction firms?

Mr. NASH. Approximately half, 50 percent contract and 50 percent force account, give or take a few percentage points.

WINSLOW–TOREVA ROAD, ARIZONA

Chairman HAYDEN. What is the status of the Winslow-Toreva Road in Arizona?

Mr. NASH. I think we have a good report on the Winslow-Toreva Road, Mr. Chairman. It will all be put under contract this year.

Chairman HAYDEN. It takes quite a little time to get around there.

Mr. NASH. Yes, sir.

Chairman HAYDEN. I know that the Hopis will be very, very happy, because it will cut off many miles for them to get from their reservation to market.

Mr. NASH. Without getting into the exact mileage, the remaining portion of the bituminous surfacing will be completed shortly. Specifically, the grade construction is expected to be completed in April and the remaining work will consist of 22 miles of base course, 44 miles of bituminous surfacing and 44 miles of bituminous seal coat. A contract award is scheduled for May of 1964 to include all of the remaining work.

### WIND RIVER RESERVATION ACCESS ROADS

Senator MCGEE. In April 1963 the Joint Tribal Council of the Wind River Reservation in Wyoming brought to my attention a serious situation existing on the reservation concerning the lack of short access roads to the main roads of the approved system.

The report of the council, which I made available to the Bureau, indicated that while the approved system appeared adequate, there is an urgent need for completion of short feeder roads—you might term these "farm to market" roads—for use as schoolbus routes and for other purposes. As the situation now stands, many children must walk a considerable distance to the bus stop, for instance.

In addition to about 10 of these needed access roads, there is the Maverick Springs Road, about 15 miles long, which was paved with asphalt over 10 years ago and is now in need of extensive repair. This road is on the approved system and serves several oil-producing companies and several ranches. The tribal council estimated the cost of repairing this road at about $175,000. The cost of developing the needed access roads ranges from $1,000 to $5,000 per road.

I wrote the Bureau last April about this and sent a copy of this report. In the reply of May 29, 1963, I was advised that a field report had been requested on the possibility of scheduling these projects under either the Bureau road construction program or the accelerated public works program.

Will you advise the committee on the status of the field report concerning the feeder roads requested by the Joint Business Council of Wind River Indian Reservation?

Mr. NASH. The report was completed by a letter from the Billings area office, dated June 11, 1963. Additional details were furnished verbally by Billings area office officials.

Senator MCGEE. If the report is completed, will you include it in the record?

Mr. NASH. Yes, sir.

(The report referred to follows:)

U.S. DEPARTMENT OF THE INTERIOR,
BUREAU OF INDIAN AFFAIRS,
BILLINGS AREA OFFICE,
*Billings, Mont., June 11, 1963.*

COMMISSIONER, BUREAU OF INDIAN AFFAIRS,
*Washington, D.C.*
(Attention Mr. Robert J. Trier).

DEAR SIR: Concerning your communication of May 8, 1963, with reference to a letter from Senator McGee regarding a list of projects proposed by the Joint

Business Council of the Wind River Reservation for some work, we wish to submit the following information pertaining to the projects as listed. This information has been reviewed by Superintendent Clyde W. Hobbs of the Wind River Reservation and by the superintendents of the Mill Creek School and the Fort Washakie School, and their suggestions have been incorporated into this letter.

SHOSHONE AREA

*Brown's Lane.*—This could be designed as a feeder loop road approximately 2 miles long. It would start from State Highway No. 64 and extend 1 mile east and along the Little Wind River bottom and then 1 mile south to connect with the Fort Washakie-Arapahoe Road.

This project would cost approximately $15,000 and would serve five families. The project could be constructed under our construction program as a feeder road. It would be necessary to secure right-of-way and to fence the entire length of the road.

We are asking for a resolution from the tribe as to whether or not they wish to include this project in their long range program.

*Tillman Lane.*—This project is 0.035 mile long and is a road serving five families that live in one family group. The project could not be classified as anything but a private road to this family group. The present lane is fenced and to grade and surface the road would cost approximately $1,200.

*Track Lane.*—This is a dirt road 1 mile long wandering across the flats. It serves one family; therefore, it would be impossible to get the Bureau of Public Roads to approve this as a construction project. There are also two abandoned houses along the road.

*Noseep Lane.*—This project is one-half mile long and serves a family group consisting of two families. One lives in a frame house and the other in a trailer house. The road would require right-of-way. Since this project is very much of a private nature it would be impossible to get Bureau of Public Roads' approval on the route.

*South Fork Spur and Bridge.*—This project could be put on the Wind River Road system. A new bridge across the South Fork of the Little Wind River would be required. The project would provide a loop road for schoolbus purposes and would serve a total of eight families. About 1½ miles of new road would have to be built. A right-of-way will have to be secured, some of which will be through an allotment where we may have some objections as it would split an irrigated field. The road would cost approximately $15,000 and the bridge $20,000.

ARAPAHOE AREA

*Blackburn Lane.*—This is a graded, gravel-surfaced county road 1½ miles long. It has never been maintained by the Indian Service and is a county obligation.

*Jenkins Lane.*—This is a private road 0.025 mile long to one house which has been deserted. There are no other houses or individuals living along this road.

*Yellow-Calf Lane.*—This road is approximately one-half mile long and leads from the Fort Washakie-Arapahoe Road to a cemetery. There are no families living along the road. The road could be graded and surfaced with pit run gravel for about $2,600. A right-of-way would have to be secured and three culvert pipes installed.

*Extension of Thunder Lane.*—This road is approximately one-half mile long and leads to a private family cemetery. Thunder Lane Road could be extended to this cemetery at an approximate cost of $1,000. Right-of-way would have to be secured and the lane fenced. The work could possibly be done under a heavy maintenance program.

*Sage Cemetery Lane.*—This road is 1$\frac{3}{10}$ miles long and wanders through the sagebrush. There are no families living along the route. It serves a private cemetery for three families. There is no evidence of any recent burial. The road would cost about $3,000. It would be necessary to secure a right-of-way.

*Maverick Springs Road.*—This project is on the Indian Service road system and was oil surfaced about 15 years ago. The road has been maintained by the Indian Service; however, the maintenance has not kept up with the deterioration of the roadbed. The project should be half-soled with a new mat and the estimate of $175,000 is about the approximate cost of this work.

Of the projects listed above, the only ones that might be eligible for public works funds would be the Brown's Lane loop road and the South Fork spur and bridge project, both located in the Shoshone area, and the Maverick Springs road

in the Arapahoe area. This later project serves an oil field which provides most of the oil royalty for the tribe.

Sincerely yours,

FRED O. THOMPSON,
*Acting Area Director.*

Mr. NASH. Later, the Bureau was informed that the list of projects proposed by the Joint Business Council, and this report, were reviewed with the council. It was jointly agreed that two of the roads were public roads and eligible for addition to the Bureau road system; Brown's Lane Road and South Fork spur road were added to the road system. The other projects listed in the report were considered not qualified for improvement with Federal funds as they were projects serving private interests.

Senator MCGEE. Have you scheduled any of the feeder roads, listed in the Joint Business Council's request, for construction in your program this year? If not, how much would be required to get started on these roads?

Mr. NASH. No. Only two of the roads included in the Joint Business Council's request qualify under the Bureau's road system. These two roads are Brown's Lane Road and South Fork spur road. These two roads would cost $50,000 and $185,000 respectfully.

## GENERAL ADMINISTRATIVE EXPENSES

Chairman HAYDEN. For general administrative expenses the Bureau of Indian Affairs requests $4,331,000 in fiscal year 1965. This is an increase of $66,000 over the appropriation for last year, all of which is accounted for by pay costs.

(The document referred to follows:)

BUREAU OF INDIAN AFFAIRS

*General administrative expenses*

| | |
|---|---|
| Appropriation, 1963 | $4,000,000 |
| Pay cost supplemental | 190,950 |
| Total appropriation, 1963 | 4,190,950 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration | −3,342 |
| Total available, 1963 | 4,187,608 |
| Total appropriation, 1964 | 4,265,000 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | |
|---|---|
| To provide for increased pay costs for fiscal year 1964 positions | +66,000 |
| Total estimate, 1965 | 4,331,000 |

*General administrative expenses*

| Activity | Fiscal year 1963, amount available | Fiscal year 1964, amount available | Estimate, fiscal year 1965 | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. Departmental office | $1,190,178 | $1,233,000 | $1,258,000 | $25,000 | $25,000 | ---------- |
| 2. Field offices | 2,936,567 | 3,032,000 | 3,073,000 | 41,000 | 41,000 | ---------- |
| Unobligated balance lapsing | 60,863 | ---------- | ---------- | ---------- | ---------- | ---------- |
| Total | 4,187,608 | 4,265,000 | 4,331,000 | +66,000 | +66,000 | ---------- |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*Plan of work.*—The programs of the Bureau are administered from two organizational levels—the Washington office and area offices. In the Washington office, basic policy determinations are made, programs are evaluated, and operating procedures are developed; with the area offices carrying out the various programs and functions.

In the interest of efficiency and economy, the area offices perform the housekeeping functions for services common to all program activities. The benefiting program activities share part of the cost of these services based on the amount of administrative workload each program may create and the funds available to that program. The Bureau's proposed 1965 administration program totals $5,841,000, of which $4,331,000 is requested under the "General administrative expenses" appropriation and $1,510,000 allocable to program activities. A comparison of the program follows:

| | 1963 | 1964 | 1965 | Change |
|---|---|---|---|---|
| Share of participating program activities | $1,325,000 | $1,375,000 | $1,510,000 | +$135,000 |
| General administrative expense appropriation | 4,187,608 | 4,265,000 | 4,331,000 | +66,000 |
| Total administration program | 5,512,608 | 5,640,000 | 5,841,000 | +201,000 |

NOTE.—The total amount requested for administration, $5,841,000 is approximately 2.8 percent of the total funds requested for the entire Bureau in 1965.

STATUS OF PROGRAM

This program provides for carrying out administrative functions which support Bureau program activities. These functions include budgeting, accounting, property management, personnel management, and management planning.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $4,126,745 | $4,265,000 | $4,331,000 | +$66,000 |
| Transferred to "Operating Expenses, Public Building Service" General Services Administration | 3,342 | | | |
| Unobligated balance lapsing | 60,863 | | | |
| Appropriation | 4,190,950 | 4,265,000 | 4,331,000 | +66,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 3,113,794 | 3,363,138 | 3,411,838 | +48,700 |
| 12 Personnel benefits | 230,166 | 256,090 | 261,090 | 5,000 |
| 21 Travel and transportation of persons | 213,920 | 230,176 | 230,176 | |
| 22 Transportation of things | 3,884 | 2,586 | 2,586 | |
| 23 Rent, communication, and utilities | 163,280 | 120,530 | 124,530 | +4,000 |
| 24 Printing and reproduction | 53,144 | 46,040 | 50,982 | +4,942 |
| 25 Other services | 75,933 | 40,613 | 40,613 | |
| Services of other agencies | 71,081 | 73,926 | 73,926 | |
| 26 Supplies and materials | 75,354 | 81,642 | 85,000 | +3,358 |
| 31 Equipment | 126,189 | 50,259 | 50,259 | |
| Total obligations | 4,126,745 | 4,265,000 | 4,331,000 | +66,000 |

Chairman HAYDEN. What comment do you care to make with regard to this budget item?

Mr. NASH. Mr. Chairman, we have held our administrative costs constant over quite a number of years, in spite of the additional workloads that have come about through the accelerated public works program and the many other economic development activities that we are now carrying on. We administer this very large program from Barrow, Alaska to the Everglades in Florida, in 500 different locations, with an overall administrative expense of 2.8 percent. We are determined to hold our administrative costs down, but I think we have reason to be proud of the fact that we can do it for 2.8 percent.

MENOMINEE EDUCATIONAL GRANTS

Chairman HAYDEN. In accordance with the requirements of Public Law 87–432, the Bureau requests $88,000 to be used as a grant to the State of Wisconsin in behalf of the Menominee Indian Tribe as a contribution to school costs. The justification will be included in the record.

(The justification referred to follows:)

MENOMINEE EDUCATIONAL GRANTS

| | |
|---|---|
| Appropriation, 1963 (transfer from "Education and Welfare Services," Public Law 88–25) | $176,000 |
| Appropriation, 1964 | 132,000 |
| Decrease: School district costs | 132,000 |
| Increase: School district costs | 88,000 |
| Budget estimate, 1965 | 88,000 |

*Analysis by activities*

| Activity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Decrease (−) |
|---|---|---|---|---|
| School district costs | $176,000 | $132,000 | $88,000 | −$44,000 |

*Need for estimate.*—The $88,000 requested for 1965 will be used as a grant to the State of Wisconsin in behalf of the Menominee Indian Tribe as a contribution to school costs, as provided by Public Law 87–432.

*Plan of work.*—This program provides for grants to lessen the impact of the termination of Federal services to the Menominee Indian Tribe of Wisconsin. These grants will be made to the State of Wisconsin for contribution to joint school district costs. Legislation authorizing this action is contained in Public Law 87–432, approved April 4, 1962.

STATUS OF PROGRAM

Public Law 87–432, approved April 4, 1962, authorizes grants to the State of Wisconsin or the county or town of Menominee for contribution to joint school district costs. A total of $220,000 was authorized for 1962. This amount is decreased 20 percent each year for the next 4 succeeding years through 1966. The $88,000 requested in this estimate will be used to make the fourth of five total payments authorized under the legislation.

Chairman HAYDEN. This is the fourth of the five payments required by law. Other than that do you have any comment to make?

Mr. NASH. No, sir. This is a grant-in-aid to the county for which we have, at the direction of the Congress, requested appropriations although Federal supervision over the Menominees has been terminated by an act of Congress. I know, from my own knowledge and correspondence from the State, that there are serious health and welfare and county cost problems in the county. And most of these, I may say, were anticipated at the time that the aid bill was up which resulted in the check for the State in the assistance to the school district. We do not have either the authority or the responsibility for looking into this situation, but there is a serious condition there which somebody ought to do something about.

LANGUAGE CHANGE FOR PASSENGER CARRYING MOTOR VEHICLES

Chairman HAYDEN. I will include in the record your statement regarding language changes which will permit purchase of 66 additional motor vehicles.

(The statement referred to follows:)

ADMINISTRATIVE PROVISIONS

EXPLANATION OF LANGUAGE CHANGE

The language provides for the purchase of 241 vehicles of which 175 shall be for replacement only. Included in the 66 additional vehicles are 41 police-type vehicles needed to carry out the Bureau's responsibility in the area of law and order, and 25 buses to meet the additional needs in transporting pupils to and from schools.

Of the 175 passenger-carrying vehicles which the Bureau proposes to replace, 90 meet both the age and mileage standards; 55 meet the mileage standard; 25 meet the age standard; and 5 will be replaced because of excessive maintenance cost due to reservation road conditions.

Chairman HAYDEN. Would you indicate, by insertion in the record, where each of the 41 police-type vehicles and the 25 buses are to go?

Mr. NASH. Yes, sir. We will supply that for the record.

The information referred to follows:

CARS AND BUSES

*Distribution of 41 new police-type cars and 25 school buses*

| | |
|---|---|
| Police cars: | |
| Aberdeen area: | |
| Pierre Agency | 1 |
| Fort Berthold | 1 |
| Pine Ridge | 1 |
| Standing Rock | 1 |
| Turtle Mountain | 1 |
| Billings area: | |
| Crow | 4 |
| Blackfeet | 1 |
| Fort Belknap | 1 |
| Northern Cheyenne | 1 |
| Wind River | 1 |
| Minneapolis area: Red Lake | 3 |
| Gallup area: | |
| United Pueblos | 1 |
| Consolidated Ute | 1 |
| Jicarilla | 1 |
| Mescalero | 1 |
| Zuni | 3 |
| Phoenix area: | |
| Fort Apache | 2 |
| Nevada | 4 |
| Papago | 1 |
| Pima | 1 |
| Phoenix area—Continued. | |
| San Carlos | 1 |
| Hopi | 1 |
| Portland area: | |
| Colville | 2 |
| Fort Hall | 2 |
| Northern Idaho | 1 |
| Warm Springs | 1 |
| Western Washington | 2 |
| Total | 41 |
| School buses: | |
| Anadarko area: Concho Agency | 1 |
| Billings area: Northern Cheyenne Agency | 1 |
| Muskogee area: Choctaw Agency | 2 |
| Gallup area: | |
| Navajo Agency | 20 |
| United Pueblos Agency | 1 |
| Total | 25 |

TRIBAL FUNDS

Chairman HAYDEN. The statement which you have supplied in connection with tribal funds will be printed in the record.

(The statement referred to follows:)

TRIBAL FUNDS

HIGHLIGHT STATEMENT

Funds have been deposited into the Treasury pursuant to various statutory acts of the Congress to be made available for expenditure for the use and benefit of the respective groups. The source of these funds is largely from income derived from Federal management of tribal real properties, the title of which is held in trust by the United States for the tribes. Another significant source is judgments or awards made pursuant to either general or specific statutory authorities enacted by the Congress.

In certain cases, the Congress has enacted legislation which provides the Secretary of the Interior with continuing authority to carry out the provisions of the specific acts. Such authorities are referred to as permanent authorizations. Examples of such legislation are: Fort Peck Indians, Montana (68 Stat. 329), Minnesota Chippewa Tribe of Indians (58 Stat. 271), and the Navajo Indians

(64 Stat. 44). Funds covered by permanent authorizations, however, are included in annual budget presentations to give the Congress an opportunity to review the activity conducted under the authorities extended to the Secretary of the Interior.

In the absence of permanent expenditure authorization, annual appropriation by the Congress is required to permit the use of the funds. Such authority is provided annually in the Department of the Interior Appropriation Act and covers two categories: (1) annual definite; and (2) annual indefinite.

Annual definite encompasses the use of funds, primarily, of those tribes who are not sufficiently organized to be represented by a recognized governing body. Funds programed under this type of authorization are not otherwise available for expenditure without congressional action and the $3 million requested for fiscal year 1964 is to provide the Secretary of the Interior with expenditure authority for the execution of programs, including such items as education of Indian children attending public or private schools, purchase of land and improvement thereon, compensation and expenses of tribal officers, councils, committees, and for various other purposes benefiting the particular Indian tribes. Expenditures made under this authority are individually made through Treasury regional disbursing offices, subject to the same regulations and procedures as appropriations from the general fund of the Treasury.

The annual indefinite authorization in the appropriation act provides the necessary authority, on an annual basis for the Secretary of the Interior, for such purposes as are designated by a particular tribe, to withdraw from the tribal accounts in the Treasury amounts which are to be advanced to bonded tribal treasurers of orgaized tribes to carry out out programs approved by the Secretary and the conduct of tribal operations, including, but not limited to, management of tribal resources and other programs designed to improve the situation of the general membership.

Approximately 300 Indian tribes, bands, or identifiable groups have approximately 600 accounts in the U.S. Treasury which are used for the conduct of tribal financial programs, enterprises, businesses, and other tribal affairs. These funds are available for various purposes, under various acts of Congress and are also subject to the provisions of tribal constitutions, by laws, charters, and resolutions of the various tribes, bands, and groups.

Tribes who need their own funds which are on deposit in the U.S. Treasury are required to prepare budgets for approval. Tribal funds are programed under three categories; namely, permanent authorization, annual authorization, and indefinite authorization.

Funds programed under the permanent authorization are made available under various acts of Congress and can be disbursed either through the Treasury disbursing offices or advanced to a tribe for disbursement through the Indian Service disbursing agent's accounts or advanced to a tribe for disbursement by a bonded tribal treasurer under an approved plan of operation. These funds do not require annual approval by Congress but are reported annually in the budget schedules. Funds programed under the annual authorization are disbursed through the Treasury disbursing offices, subject to the same procedures and limitations as appropriated gratuity funds and require annual approval by Congress. Funds programed under the indefinite authorization are made available under the annual Interior Department Appropriation Act under heading tribal funds. These funds are advanced to tribes for disbursement by Indian disbursing agents or by bonded tribal treasurers under a plan of operation. Some Indian tribes employ more than one of the above methods in conducting their affairs. The following proviso makes these funds available: "* * * *Provided*, That, in addition to the amount appropriated herein, tribal funds may be advanced to Ind an tribes during the current fiscal year for such purposes as may be designated by the governing body of the particular tribe involved and approved by the Secretary, except that tribal funds derived from appropriations in satisfaction of awards of the Indian Claims Commission and the Court of Claims shall not be further appropriated until a report of the purposes for which the funds are to be used has been submitted to the Senate and House Committees on Interior and Insular Affairs and those purposes either have been approved by resolution of either of said committees within 60 calendar days from the date the report is submitted, not counting days on which either House is not in session because of an adjournment of more than 3 calendar days to a day certain: * * *."

In the last 10 to 15 years, many tribes have progressed to the point that they have taken over the management of their affairs and the disbursement of their funds under a plan of operation previously approved by the Secretary and it is the policy of the Bureau to encourage tribes in this respect. Annual audits made of tribal funds by certified accountants of commercial auditing firms are submitted to the Bureau for review and information.

EXPLANATION OF LANGUAGE CHANGE

The proposed change in language will provide for payment of litigation expenses incurred in connection with the wards of judgments or claims immediately upon appropriation of the funds into the Treasury, and receipt and approval of the billings for such services; makes available a limited amount of funds to the tribes to cover the cost of preparing the plans for the use of the awards, and outlines reporting procedures stating the purposes for which such funds will be used.

*Tribal funds*

| | |
|---|---|
| Appropriation 1963 | $3,000,000 |
| Appropriation 1964 | 3,000,000 |

SUMMARY OF INCREASES AND DECREASES, 1965

No increase or decrease in this appropriation.

| | |
|---|---|
| Net change, 1965 | 0 |
| Budget estimate, 1965 | 3,000,000 |

*Statement relating 1963, 1964, and 1965 programs*

| | | |
|---|---|---|
| 1963 appropriation (annual authorization) | | $3,000,000 |
| 1964 budget estimates (annual authorization, inluding supplementals submitted to Congress) | | 3,000,000 |
| Total appropriations for 1964 | | 3,000,000 |
| Deductions: | | |
| Law and order | $29,061 | |
| Forest and range lands | 19,978 | |
| Fire suppression | 1,000 | |
| Repair and maintenance facilities | 15,496 | |
| Buildings and utilities | 68,000 | |
| Purchase of land | 106,988 | |
| Roads | 3,000 | |
| Administrative expenses | 12,894 | |
| Compensation and expense of tribal attorneys | 34,460 | |
| Miscellaneous | 3,000 | 293,877 |
| Subtotal | | 2,706,123 |
| Additions: | | |
| Welfare | 1,150 | |
| Agricultural extension | 400 | |
| Credit | 15,105 | |
| Soil and moisture conservation | 6,808 | |
| Maintenance of roads | 700 | |
| Management of Indian trust property | 7,199 | |
| Equipment | 31,500 | |
| Tribal officers and council expenses | 14,000 | |
| Miscellaneous tribes | 217,015 | 293,877 |
| Total estimate for 1965 (annual authorization) | | 3,000,000 |

*Analysis by activities*

| Activity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| 1. Education and welfare services | $94,505 | $116,113 | $88,202 | −$27,911 |
| 2. Resources management | 708,477 | 747,727 | 741,461 | −6,266 |
| 3. Construction and land acquisition | 252,258 | 529,038 | 382,550 | −146,488 |
| 4. General tribal affairs | 531,436 | 1,607,122 | 1,787,787 | +180,665 |
| Total | 1,586,676 | 3,000,000 | 3,000,000 | |

*Analysis of annual authorizations by activities*

| Activities | 1964 | Deductions | Additions | 1965 |
|---|---|---|---|---|
| 1. Education and welfare services | $116,113 | $27,911 | ---------- | $88,202 |
| 2. Resources management | 747,727 | 6,266 | ---------- | 741,461 |
| 3. Construction and land acquisition | 529,038 | 146,488 | ---------- | 382,550 |
| 4. General tribal affairs | 1,607,122 | ---------- | $180,665 | 1,787,787 |
| Total | 3,000,000 | 180,665 | 180,665 | 3,000,000 |

*Indian tribal funds*

| | 1963 | 1964 | 1965 |
|---|---|---|---|
| 1. Permanent authorization | $60,050,506 | $61,760,523 | $46,932,168 |
| 2. Annual authorization | 1,586,676 | 3,000,000 | 3,000,000 |
| 3. Indefinite authorization | 4,894,661 | 4,391,221 | 4,090,411 |
| Total | 66,531,843 | 69,151,744 | 54,022,579 |

*Comparative statement of annual authorization activities*

| | 1963 | 1964 | 1965 |
|---|---|---|---|
| 1. Education and welfare services | $94,505 | $116,113 | $88,202 |
| 2. Resources management | 708,477 | 747,727 | 741,461 |
| 3. Construction and land acquisition | 252,258 | 529,038 | 382,550 |
| 4. General tribal affairs | 531,436 | 1,607,122 | 1,787,787 |
| Total | 1,586,676 | 3,000,000 | 3,000,000 |

*Plan of work.*—No part of the funds contained in this estimate represents a charge upon the Federal Treasury. This item reflects the disbursement of funds to the credit of Indian tribes or bands under numerous special acts of Congress in compliance with the terms of the various trusts and for carrying out tribal programs recommended by the tribal governing bodies with the approval of the Commissioner of Indian Affairs.

The budget schedule reflects under the permanent authorization, disbursements from the tribal trust funds authorized by permanent legislation, and under the annual and indefinite authorizations, amounts requested annually by the various tribes for carrying out various tribal activities.

The estimate, therefore, is restricted to the funds requested annually as required by section 27 ot the act of May 18, 1916 (39 Stat. 158).

LANGUAGE CHANGE—TRIBAL FUNDS

Chairman HAYDEN. In the budget submission there is a change proposed in the tribal funds language which would authorize payments for attorneys' fees, litigation and program planning, and require plans to lay before the legislative committees for 60 days before becoming effective. Recently, though, I have received proposed language, which I will place in the record and which would authorize these payments but would prohibit other uses until after enactment of legislation setting forth the purposes for which the funds are to be used.

(The language referred to follows:)

After the word "Secretary" in the first proviso under the heading "Tribal Funds" strike out the comma and all words through "certain" preceding the colon and insert a colon and the following:

"*Provided further*, That funds derived from appropriations in satisfaction of awards of the Indians Claims Commission and the Court of Claims shall not be available for advances, except for such amounts as may be necessary to pay attorney fees, expenses of litigation, and expenses of program planning, until after legislation has been enacted that sets forth the purposes for which said funds will be used."

Chairman HAYDEN. Are you familiar with this latter language?

Mr. NASH. Yes, sir. I am. Mr. Chairman, we need a change in the present language. To operate under the authority we now have, we would have to present a proposal to the two substantive committees and either get action or have it lie there for 60 days, after which we would have to get an appropriation or wait until the next year's appropriation bill comes up.

CLAIMS

We are getting more and more of these claims as the Claims Commission accelerates its decisions and we would like to be able to pay litigation costs currently and to be able to allot a small amount to some of the tribes for planning purposes, looking toward the development of a long-range program for the total amount. And, at that time, we would then go to the Congress and get specific legislation authorizing the program. And the new language which has been proposed to this committee, would accomplish these purposes.

Chairman HAYDEN. Has anybody made an estimate as to when Congress will quit paying the Indians for the United States and how much that cost will be?

Mr. NASH. No, sir. But about 20 percent of the claims filed with the Indian Claims Commission have now been adjudicated and the total of the awards is in the vicinity of $95 million.

Senator BARTLETT. Alaska is to be heard from yet, Mr. Chairman.

Chairman HAYDEN. Do you recommend its incorporation in the appropriation bill?

Mr. NASH. Yes, sir.

Chairman HAYDEN. I have received a letter from Senator Jackson, Chairman of the Senate Committee on Interior and Insular Affairs, in which he endorses the amendatory language pertaining to tribal funds which you have just stated that you approve. His letter will be included in the record.

(The letter referred to follows:)

U.S. SENATE,
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
*February 20, 1964.*

Hon. CARL HAYDEN,
*Chairman, Appropriations Committee,*
*U.S. Senate, Washington, D.C.*

DEAR CARL: For the past 2 or 3 years, there has been written into the "Tribal Funds" section of the annual Interior Department Appropriation Act, restrictions against the use of judgment funds arising from Indian claims. Indians in my State have written to me requesting there be some modification of the appropriation language that would give more flexibility in using judgment funds. I understand the Department of the Interior is recommending new language that reads as follows:

"*Provided further*, That funds derived from appropriations in satisfaction of awards of the Indian Claims Commission and the Court of Claims shall not be available for advances, except for such amounts as may be necessary to pay

attorney fees, expenses of litigation, and expenses of program planning, until after legislation has been enacted that sets forth the purposes for which said funds will be used."

This recommendation appears to resolve the existing problems and still reserves to the Committee on Interior and Insular Affairs jurisdiction over legislation providing for the use of the principal fund. I would like to express the hope that your committee would adopt it in the fiscal year 1965 Interior appropriation bill.

Sincerely yours,

HENRY M. JACKSON, *Chairman.*

Chairman HAYDEN. Senator Bible.

BUREAU OF INDIAN AFFAIRS EMPLOYMENT

Senator BIBLE. Mr. Commissioner, might I ask you what the strength of your Indian Bureau is now? How many people do you employ?

Mr. NASH. In permanent positions it is 12,399 as of December 31. We also hire temporaries.

Senator BIBLE. How many temporaries do you have?

Mr. NASH. The temporaries on December 31, the same date, 2,662.

Senator BIBLE. Now what is a temporary employee?

Mr. NASH. A temporary employee is hired for less than 12 months; he does not get a lot of the fringe benefits that the career civil servant gets. We use such individuals in the summer for firefighting, in our operations of buildings, and utilities. Many of these are Indian people, some of them are not qualified as teachers, but are used as instructional aids in our schools or in our dormitories.

Senator BIBLE. What would be their average length of employment during a year?

Mr. NASH. The average length of service of a temporary or part-time employee is approximately 4½ months.

INDIAN POPULATION

Senator BIBLE. How many Indians do you have under your jurisdiction?

Mr. NASH. 380,000.

Senator BIBLE. How many nonreservation Indians do you have? Are those just reservation Indians?

Mr. NASH. These are on or near. This would not include, for example, Indians living in Los Angeles, San Francisco, Chicago, Denver, Minneapolis, unless they were brought there as part of our vocational training or relocation programs.

Senator BIBLE. What is the total Indian population in the United States?

Mr. NASH. The 1960 census counted 552,000 Indians, Eskimos, and Aleuts.

Chairman HAYDEN. Are these full-bloods or halfs?

Mr. NASH. The census does not make an inquiry as to full or half. They merely say, "Are you an Indian?" "Are you known as an Eskimo?"

Senator BIBLE. Following the Chairman's question, where does your jurisdiction rest in that regard? Do you have a measuring stick?

Mr. NASH. No, sir. Our basis for providing services to an Indian is primarily on real estate. That is, we service those individuals who

reside on trust or restricted land, or so close to it that the program of the reservation would be affected by services not performed for that person.

Senator BIBLE. How does an Indian tribe determine its membership? Does it have a measuring stick of an eighth or a fourth?

Mr. NASH. Sometimes they do and sometimes they do not. The Cherokees in North Carolina have a quantum membership and it happens to be one-sixteenth at the present time. One-quarter is more common, but some tribes do not have any.

### AVERAGE EARNINGS OF INDIANS

Senator BIBLE. Do you have any specifics that would indicate the average earnings of the male and the female adults of the 380,000 Indians that are under your jurisdiction? How much do they earn annually?

Mr. NASH. We are beginning to accumulate such statistics. The best way to answer, Senator, I think, is to say that the average income of an Indian family is between one-fourth and one-third the national average.

Senator BIBLE. You are referring now to the jurisdictional Indians?

Mr. NASH. Yes, sir.

Senator BIBLE. Those under your jurisdiction?

Mr. NASH. Those under our jurisdiction.

### ECONOMIC STATUS OF INDIANS

Senator BIBLE. Do you have any figures that indicate the economic status of the Indians not under your jurisdiction?

Mr. NASH. No, sir. Those would be included in other figures gathered by the Bureau of Labor Statistics for the cities in which those people are living. When we take one of these people from the depressed reservations and provide them with vocational training, we know that they get into very good paying jobs and become stable and self-sufficient citizens of the communities in which they live.

Senator BIBLE. The purpose of my question is to try to determine just exactly that very thing, to see if the Indians who do leave the reservations actually are bettering themselves and are holding responsible jobs or do they revert back to reservation status?

Mr. NASH. The graduates of our own vocational boarding school we follow to some extent, and Mr. Knodel, Chief of our Employment Assistance Branch, follows as best he can those who have taken part in our adult vocational training program.

Might I ask him to comment on his experience? Mr. Knodel.

Mr. KNODEL. We are certain that they do materially better incomewise.

Senator BIBLE. You mean when they are away from the reservation?

Mr. KNODEL. That is right, sir. We notice a marked degree of activity in home purchase, for example, purchase of appliances, improving living in general, as a result of increased earnings.

Mr. NASH. I might state, Senator, that I would like to draw a distinction between the success that individual Indians have if they get the vocational training that we are providing them under Public Law 84–959 as amended and those who are merely assisted to relocate

without the vocational training. The relocation without vocational training is not very successful. They are likely to move from one pocket of poverty to another, from a rural pocket of poverty to an urban pocket of poverty and just maybe come back and give up. But when we spend the money necessary to equip the single person or head of a family with a marketable skill, then you have stabilized the members of a complete family and made them an important part of the community in which they live. We are very strongly for this program.

ECONOMIC STATUS OF INDIANS IN NEVADA

Senator BIBLE. I am frank to say that I have attempted, practically all of my life, to follow the economic welfare of the Indians in my own State of Nevada. I have gone to school with them during grammar school days and high school days, and a few probably drifted into college, but very few. I am frank to say, I cannot see very much improvement. It looks to me as though they are in the same position now as they were 30 years ago. There are exceptions, but they do seem to revert to the reservation time after time. I see Mr. Fryer here today. He was very helpful in our earlier days as superintendent of the Stewart Indian School. I am not trying to be critical and it is a very difficult job, but I am convinced hat we are not making much progress, at least in Nevada. I am told more emphasis should be put on this vocational education and from some of my firsthand experience with Indians I know that they do become fairly good craftsmen and fairly good on machines. In my State, we have Piute Tribes. Some work on the railroads and some do work with their hands, and do a fairly good job. But I do not know a very easy answer to this problem and if there is any way that the vocational education for the Nevada Indians could be accelerated, I would think it would be helpful.

NEVADA INDIAN COLONIES

I would like to develop another line. One of the most alarming problems we have in Nevada are these clusters of Indian colonies where the title is held for the particular tribe by the U.S. Government in trust. They are eyesores in about three of our cities that readily come to mind.

Elko is one and the person who handles it in your department is well aware of that. This is a little holding for the Indians held in trust. We have managed to secure money to give them some sanitation and we get the sanitation in and it immediately reverts to very little better than a jungle with the subdivisions moving completely around it. I have constantly talked to your people on this problem. We have the same thing in Winnemucca and Las Vegas and we have managed to secure a few thousands of dollars to finally give them some sanitation and to give them some water.

But, again, it reverts directly back to rather primitive status completely surrounded by a city. There must be some solution to that type of a problem. I do not know what it is and I wish you would have whoever is in charge of it take a look at those areas and see if there is some way you can move the reservations out beyond the city limits or improve the property, because the Indians simply will

not improve it. There are nothing except shacks. I am frank to say the Reno colony is much better. Rev. Clyde Matthews has taken an interest in that and has built it up quite a bit. I would like to have someone in your organization with authority take a look at it and come up with a solution. That is, I would like someone in Government who is better able than I am to find a solution. I have been wrestling with this for 5 or 6 years and it is worse now than when I started out. This is no reflection on you, Commissioner. But I would like to get the answer.

Mr. NASH. Senator, we wrestled with it, too.

I wish I could tell you that we are confident of finding the answer. It is a very, very difficult problem. I am sure that when the war on poverty is launched we are going to discover that this question is not an easy one to answer.

Senator BIBLE. Very few of your Indian people want to live in these areas. They come in and out. They are known to come in for a Saturday evening and stay over the weekend and leave. It leads to a deplorable condition from the standpoint of health and sanitation and actually gives the police some problems.

So I wish you would have some of your people look into it.

### PYRAMID LAKE

One further question and I direct this possibly to Mr. Fryer. We are losing a golden opportunity in the State of Nevada by not doing something about Pyramid Lake. It is one of the most beautiful lakes in the world. It is completely under Indian jurisdiction and, again, this seems to be an area where we are not doing everything we should. And I would like to see Mr. Fryer, or whoever is responsible for it, get with me at some early date and see if we cannot do something to improve this status. They have a great natural resource there and very little is being done with it.

Mr. NASH. We have just finished a feasibility study for a recreation development at Pyramid Lake and Mr. Fryer will be delighted to tell you about it or come and call on you.

Senator BIBLE. I do not want to trespass on the other committee members' time. Senator Bartlett is here and I am sure he has questions.

I think it needs more impetus, because this could be very helpful to the Pyramid Lake and to the Piute Indian Tribe. They have a great natural resource there. I want to see them get the benefit of it. I do not want to see it stolen away from them. I hope Mr. Fryer or whoever has the responsibility, contacts me and I would suggest they might do it next week.

Thank you, Mr. Chairman.

Chairman HAYDEN. Senator Bartlett, do you have any questions?

Senator BARTLETT. Yes, sir. A few.

### INDIAN CENSUS AND BUREAU EMPLOYEES

Pursuing Senator Bible's line of inquiry, I wonder if you would be good enough to supply for the record for the years 1930, 1940, 1950, and 1960, the Indian population for each of those census periods, the number of BIA employees for each of those years, and the amount of

BIA appropriations for each of those years, plus a similar statement for the current year.

Mr. NASH. Yes, sir.

| Year | Indian population (based on census) | Appropriations | Bureau of Indian Affairs employees |
|---|---|---|---|
| 1930 | 362,400 | $19,879,035.91 | 7,295 |
| 1940 | 393,000 | 42,619,116.00 | 12,185 |
| 1950 | 455,500 | [1] 67,469,746.00 | [1] 12,588 |
| 1960 | 552,000 | [2] 115,777,000.00 | [2] 11,667 |
| 1964 | [3] | 206,623,500.00 | [4] 15,061 |

[1] Includes Indian health activities which were transferred to Department of Health, Education, and Welfare, July 1, 1955 (68 Stat. 674–675).
[2] Excludes Indian health activities which were transferred to Department of Health, Education, and Welfare, July 1, 1955 (68 Stat. 674–675).
[3] Not available.
[4] Dec. 31, 1963, employment.

NOTE.—The service population of the Bureau of Indian Affairs in 1962 was 380,000.

REVOLVING FUND FOR LOANS

Senator BARTLETT. What is the ceiling on your Wheeler-Howard fund?

Mr. NASH. The revolving fund?

It is $20 million.

Senator BARTLETT. Has that all been appropriated?

Mr. NASH. That has all been appropriated and we have in the legislative process, in the very early stages of preparation, proposals to augment funds in several different ways. We have proposed a loan insurance and guarantee fund, we have proposed additional authorizations for the standard revolving loan fund, and, then, the heirship bill which has already passed the Senate, carries with it a $35 million land-purchase program.

Senator BARTLETT. Broadly speaking, how has this program worked out?

Mr. NASH. Very well. There is a tremendous unmet need for Indian credit. With the exception of the canneries in southeast Alaska, the repayment record is considerably more favorable than that of most commercial lenders. And the program in southeastern Alaska is absolutely essential to the life of those villages.

Senator BARTLETT. You wounded me vitally, but you withdrew the knife. Thank you.

LOAN REPAYMENT

Mr. NASH. I could not let the record show that there was a good repayment record of those villages, but I would also like the record to show that it has been a very important economic mainstay.

Senator BARTLETT. The record ought to show, also, that it is not only the Indian canneries that have suffered severe economic reversals in the last several years. Canneries owned by others have been in difficulties because there just have not been enough salmon to pack. That has been the trouble; has it not?

Mr. NASH. Yes, sir.

Senator BARTLETT. You say that the repayment rate has been excellent?

Mr. NASH. It has been at the rate of four-tenths of 1 percent.

Senator BARTLETT. That is better than commercial banks; is it not?

Mr. NASH. Yes, sir.

### Reindeer Project in Alaska

Senator Bartlett. Did you mention a reindeer project in Alaska?

Mr. Nash. Yes, sir.

Senator Bartlett. You said on Nunivak Island there are too many reindeer. What is the proposal? Is it to remove the reindeer from that island to the mainland?

Mr. Nash. Yes, sir.

Our proposal is to add five people to our staff, all of whom will work on the reindeer program to bring in some Eskimos and train them in the practice of reindeer herding and management on Nunivak Island and then reduce the herd to the carrying capacity of the island by actually removing some of the animals to a location where there is feed. And we hope to have a more successful program than we have had in the past, by teaching herding and management.

Senator Bartlett. The reindeer program has not been successful in the past, has it?

Mr. Nash. No, sir. They have provided the Eskimos with the animals and have not given them the training in herd management that was necessary, and, in addition, work that ought to have been done in processing the meat and byproducts and the problems of marketing have not been studied. We have been engaged in all of these things and now we would like to get started on them.

Senator Bartlett. Is it difficult to sell the reindeer meat that is placed on the market?

Mr. Nash. We have none in storage at the present time. I do not know whether I can say it is sold without difficulty. It is sold every year and the *North Star* brings back the meat from the freezer on Nunivak.

Senator Bartlett. Now the law says that the reindeer can be owned only by Eskimos; is that right?

Mr. Nash. That is right.

Senator Bartlett. Do you believe there is any reason to amend the law and restore it to what it was and to have no racial difference as to ownership?

Mr. Nash. This is one of the few forms of economic development which is open to the Eskimos of western Alaska and in the Nome and Bethel area. I would hope that it would remain this way for a while.

### Vocational High School, Nome, Alaska

Senator Bartlett. You have, Mr. Commissioner, an item in the 1965 request to construct a dormitory for a vocational high school at Nome, Alaska, which is certainly in western Alaska. Is this a cooperative project with the State?

Mr. Nash. Yes, sir; this is proposed as a three-phase program. The State has already completed a $1.5 million vocational school and we are proposing to put in just under $3 million for a kitchen-dining room complex, and a 150-student dormitory, plus associated quarters, and this is phase II. And in phase III the State proposes, again, to come along with another $1.5 million enlargement so that we would wind up with a complete complex of vocational instructional facilities for 300 with dormitory facilities, for 300, jointly with the State, on a 50–50 basis.

Senator BARTLETT. And this will give the Eskimo kids from the surrounding areas, who have never had an opportunity to go to high school, a chance to enter this vocational high school and to learn trades?

Mr. NASH. Yes, sir; and others, too.

Senator BARTLETT. It is contemplated that probably a good majority of the students will be Eskimos?

Mr. NASH. I assume so and in the dormitory, I assume they all will be Eskimos, because this is our primary responsibility and for this purpose our funds were appropriated. We do not contemplate a segregated facility.

Senator BARTLETT. The State's construction will be completed, as I understand it, in time for the opening of the school next fall?

Mr. NASH. Yes, sir.

Senator BARTLETT. Obviously, the dormitory will not be ready because the appropriation request is just before us. Let me ask you this, Commissioner Nash, and I have had this information rather thirdhand: Was there an intention to request reprograming with respect to the dormitories so that construction could have started this spring so that both the Federal and the State facilities would have been ready at the same time?

Mr. NASH. Yes, sir; that was our intention and we made that request.

Senator BARTLETT. And that request was stopped where?

Mr. NASH. The request was denied, sir, by the Bureau of the Budget which felt that the need for the thousand-child facility elsewhere was of more pressing importance than the provision of a dormitory for 150 at Nome.

Senator BARTLETT. In addition to the other projects which have been named here earlier in the morning as having been deferred out of deference to Tongue Point, the Nome dormitory must be added?

Mr. NASH. That is correct.

Senator BARTLETT. Thank you.

Senator BIBLE. Mr. Chairman, may I ask one or two more questions of Mr. Nash?

Chairman HAYDEN. Yes.

### EMPLOYEES IN WASHINGTON, D.C.

Senator BIBLE. When I asked you about your employees and you told me that you had so many permanent employees and so many temporary employees, how many employees are employed in Washington?

Mr. NASH. In Washington there are 380.

### INDIAN CENSUS AND BUREAU EMPLOYEES

Senator BIBLE. Would you supply for the record the total Indian population of Nevada from the last census, or if you have it estimated up to 1964, as well as the reservation and nonreservation Indians; and furnish for the record the total number of Government employees that you have in Nevada and where they are located?

Mr. NASH. Yes, sir.

(The information referred to follows:)

*Funds appropriated, fiscal year 1964 for the State of Navada*

| Appropriation and activity | Appropriated, 1964 | Nevada agency, permanent positions, 1964 |
|---|---|---|
| Education and welfare services: | | |
| Educational assistance, facilities and services | $987,805 | 110 |
| Welfare and guidance services | 235,331 | 6 |
| Relocation and adult vocational training | 19,647 | 2 |
| Maintaining law and order | 67,644 | 8 |
| Total | 1,310,427 | 126 |
| Resources management: | | |
| Forest and range lands | 29,984 | 3 |
| Agricultural and industrial assistance | 135,553 | 11 |
| Soil and moisture conservation | 88,000 | 10 |
| Maintenance of roads | 65,000 | 7 |
| Management of Indian trust property | 40,526 | 5 |
| Repair and maintenance of buildings and utilities | 234,100 | 13 |
| Operation, repair, and maintenance of Indian irrigation systems | 105,000 | |
| Total | 698,163 | 49 |
| Construction: | | |
| Buildings and utilities | 20,000 | |
| Irrigation systems | 221,522 | 4 |
| Total | 241,522 | 4 |
| Road construction (liquidation of contract authorization): Federal-aid highway roads | 240,000 | 5 |
| Grand total | 2,490,112 | 184 |

NOTE.—Based on 1960 census there were 6,681 Indians in the State of Nevada. The 1962 estimate of the number of Indians living on reservations in Nevada is 4,168.

Chairman HAYDEN. I would suggest to the Senator from Alaska that he ask for the same information from Alaska, that is, the number of Indians, the number of Eskimos, and employees, and so on.

Senator BARTLETT. I have right now. Thank you for suggesting, that, Mr. Chairman. I do make that request.

(The information referred to follows:)

Based on the 1960 census there were 43,500 Indians, Eskimos, and Aleuts in the State of Alaska. The Bureau of Indian Affairs service population in Alaska in 1962 was estimated at 38,300.

Senator BARTLETT. And I would like to know the number of Government employees in Alaska and their responsibilities and your total budget.

(The information referred to follows:)

*Funds appropriated, fiscal year 1964, for the State of Alaska, and permanent positions by districts*

| Appropriation and activity | Appropriated, 1964 | Permanent positions, total | Permanent positions, 1964 | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Juneau district | Anchorage district | Bethel district | Fairbanks district | Nome district | Southeast district |
| Education and welfare services: | | | | | | | | |
| Educational assistance, facilities and services | $7,513,063 | 462 | 198 | 15 | 98 | 54 | 93 | 4 |
| Welfare and guidance services | 1,726,087 | 33 | 15 | 7 | 3 | 5 | 3 | |
| Relocation and adult vocational training | 445,653 | 27 | 13 | 6 | 2 | 4 | 2 | |
| Total | 9,684,803 | 522 | 226 | 28 | 103 | 63 | 98 | 4 |
| Resources management: | | | | | | | | |
| Forest and rangelands | 21,167 | 1 | | | | | 1 | |
| Agricultural and industrial assistance | 510,325 | 36 | 24 | 4 | 4 | 1 | 3 | |
| Development of Indian arts and crafts | 58,367 | 3 | 3 | | | | | |
| Management of Indian trust property | 134,612 | 10 | 4 | 4 | | 2 | | |
| Repair and maintenance of buildings and utilities | 1,440,071 | 68 | 20 | 11 | 15 | 8 | 14 | |
| Total | 2,164,542 | 118 | 51 | 19 | 19 | 11 | 18 | |
| Construction: Buildings and utilities | 6,736,700 | 12 | 12 | | | | | |
| Road construction (liquidation of contract authorization): Federal-aid highway roads | 570,000 | 2 | 2 | | | | | |
| General administrative expenses | 297,782 | 36 | 36 | | | | | |
| Grand total | 19,453,827 | 690 | 327 | 47 | 122 | 74 | 116 | 4 |

Senator BIBLE. Thank you very much, Mr. Commissioner. Thank you, Mr. Chairman.

### NAVAJO SCHOOL ATTENDANCE

Chairman HAYDEN. It has been interesting for me to conduct these hearings over the years. We can recollect, as far as the Navajo is concerned, when it was most difficult to get them into school at all. The child was born and was supposed to help herd the sheep. He would not go to school at all. A change came over the situation in that reservation, which is larger than the State of West Virginia, and the Navajos are the largest tribe in the United States, when a number of young Navajos went into service during the war. A rather peculiar service that they performed, in Germany and as far as the Japanese were concerned, was they could go to the front and telephone back information in their own language and the Germans and Japanese had no way of finding out the information that they were conveying. They rendered an excellent service that way.

When they came back, having seen the world, they said that this goat meat diet is over with and we want to be like other people. That was the impetus that came from these veterans who had been in the war, to get the children into schools; they changed again at that point.

Chairman HAYDEN. The clerk will hand you a series of questions posed by Senator Mundt. Will you please prepare answers to them and place them in the record?

Mr. NASH. We will, sir.

(The information referred to follows:)

### RESPONSES TO SENATOR MUNDT'S QUESTIONS

1. Would you bring us up to date on the status of the Rosebud Boarding School? Is the money included in the fiscal year 1965 budget sufficient to complete the job? I understand you intend to get the project out for bids sometime within the next few months. When is construction expected to get underway and what about completion?

Answer. The fiscal year 1964 appropriations provided $4 million for constructing the Rosebud School. The $600,000 included in the fiscal year 1965 budget is for furnishings, equipment, construction contingencies, and design costs, and is considered sufficient to complete the project. Bids for constructing the project are scheduled to be opened on March 26, 1964. It is estimated that construction work will start about April 15, and that the project will be completed about September 1, 1965.

2. At the time the Big Bend settlement for Lower Brule was made, the Senate deleted several items that were included by the House. The tribe still feels that they are entitled to a municipal center, a road from the new town of Lower Brule to the dam via Counsellor Creek and access roads. It is my understanding that the cost of the above facilities would total about $1 million. The tribe feels that the municipal center could double as a community meeting room, surplus commodity warehouse and facilities, space for post office, tribal courtroom, jail, and office space for tribal and Federal officials. These figures are included in Senate Report 1636 of the second session, 87th Congress. Do you have any plans for helping out here?

Answer. There is available from the Corps of Engineers $33,000 for the construction of a municipal center at Lower Brule. It is estimated that a building with a large meeting room, toilets, small kitchen, and an office could be constructed with these funds. A new building with courtroom and jail facilities has recently been completed at Fort Thompson and is adequate in size for both the Crow Creek Reservation and the Lower Brule Reservation for incarceration of prisoners. Regarding the road from Lower Brule to the dam, Indian Bureau Route 5 leads south from Lower Brule Village to the new State highway which crosses the dam.

The northern section of the road will be flooded by the reservoir, and we have requested that the Corps of Engineers should provide a 4.6 mile relocation from the village to Counsellor Creek. The Bureau will extend this improvement to the State highway.

While the Secretary of the Interior has determined, as provided in Public Law 87–734, that the Corps of Engineers should replace the flooded section of the road between Lower Brule Village and Counsellor Creek, the Corps of Engineers has refused to do so on the grounds that this is part of the road from the village to the dam which Senate committee report No. 1636 removed from H.R. 5144. The Bureau maintains that the road removed from H.R. 5144 was a road from Counsellor Creek to the dam and not the Lower Brule Village to Counsellor Creek Road. This matter has not been settled.

Report No. 1636 also removed the request for access roads. Inasmuch as there is no other way to provide these access roads, they will have to be constructed as part of the Bureau's regular road program.

3. It is my understanding that the Corps of Engineers has told the Bureau of Indian Affairs and the tribe that they won't construct the new town of Fort Thompson unless the tribe or someone comes up with $70,000 for a water tower. Do you know anything about this and can you give us some background? Isn't there some way that the Bureau could absorb the $70,000? Why was this decision made?

Answer. The Corps of Engineers estimates that the cost of constructing the water system for the Fort Thompson townsite will exceed the funds available for this work by $70,000. The Corps has offered to proceed with the work as far as available funds will permit and it is our understanding that the tribe has agreed to pass a resolution confirming this position. The Bureau does not have funds for this project and cannot absorb the $70,000 cost without reducing its program somewhere else.

4. I understand that the first phase of your building program at the Pierre Indian School has been completed and that your new dormitories are now in operation. It is also my understanding that you plan as phase 2 a classroom addition, remodeling of existing classrooms, renovation of the gymnasium, remodeling of a warehouse, and construction of quarters for employees. I have been informed that preliminary drawings for these facilities have been completed and that the total cost would be around $700,000. This is a high priority project and I am wondering what you have in this budget for it. Please give us a complete rundown on this project.

Answer. While the second phase of construction at Pierre School has received a high priority in the Bureau's construction program, funds have not been included for the construction in the fiscal year 1965 budget estimates now before the Congress.

Phase one, consisting of two 168-capacity dormitories, was completed in August 1963. The construction contemplated in phase 2 consists of the following, with the estimated cost indicated:

(1) A new five-classroom school addition with administrative office, school library, a home economics classroom, and one industrial arts shop. Estimated cost of $250,000.

(2) Remodel the existing classroom building to provide a new music room and for the conversion of the 10 existing 600-square-foot classrooms to 5 standard 900-square-foot rooms. Estimated cost of $50,000.

(3) Renovate the existing gymnasium by installing a new floor and repairing exterior and interior walls. Estimated cost of $40,000.

(4) Remodel one existing brick building into a maintenance shop, and a property and supply warehouse. Estimated to cost $30,000.

(5) Construction of 16 quarters for employees as replacement for obsolete quarters at an estimated cost of $320,000.

5. I have just received another letter enclosing petitions signed by a large number of citizens of Washabaugh County concerning a road being built on the Pine Ridge Reservation. Your engineer, Mr. Walker, is apparently surveying for the road which would run 8 miles east from where the Bureau's road junctions with State No. 73 east of Wanblee. I will give you these copies of the petition I have received and wonder if you would have someone look into the objections raised by these citizens and would furnish a report to my office.

Answer. The road extending 8 miles east from State Highway 73 near Wanblee on the Pine Ridge Reservation has not been scheduled for construction. We have asked our field office for a complete report on this matter, and Senator Mundt will be furnished with full details on this matter as soon as the report is received.

6. Our facility at Flandreau has been improved greatly over the recent years, but there still remains quite a bit to be done. I understand that you estimate an expenditure of just over $1 million there in 1965; $58,000 of this is construction work of one type or another. What is contemplated there and what is contemplated as far as repair and maintenance of existing buildings?

Answer. While considerable construction work has been completed at the Flandreau School, approximately $1,150,000 is still needed to complete the remaining items. The items yet to be done, with their estimated cost, are:

| | |
|---|---|
| Fire station building | $50,000 |
| Water treatment plant | 125,000 |
| Kitchen-dining building | 275,000 |
| Utility improvements | 250,000 |
| Employee housing | 450,000 |
| Total | 1,150,000 |

None of the above is included in the fiscal year 1965 budget now before the Congress.

In fiscal year 1965 routine repair and preventative maintenance work to the existing buildings and utilities system will be accomplished as well as the construction of some new streets and sidewalks and landscaping of the school grounds. The construction mentioned is estimated to cost $58,000.

Question. Could you provide a report to my office on exactly what the extension agents are accomplishing in South Dakota for the $127,000 we provide each year as outlined on page 43 of your justifications?

Answer A maximum workload for an extension technician on an individual or family basis is about 200 families or a minimum staff would be about 1 technician per 1,000 population. In South Dakota there are 26,000 Indians living on or adjacent to the reservations. For $127,000 the South Dakota State College furnishes 15 technicians, who work on Pine Ridge, Rosebud, Standing Rock, Cheyenne River, Crow Creek, Lower Brule, and Sisseton Reservations. The major activities carried on by the extension agents, seven men and eight women are:

| | |
|---|---|
| Individual home and ranch visits | 3,700 |
| Organized homemaker clubs | 40 |
| Membership in homemaker clubs | 350 |
| Number of 4–H clubs | 134 |
| Membership in 4–H clubs | 1,700 |

Chairman HAYDEN. Also I have a number of questions which Senator Young wanted to ask. However, he is detained at another hearing. Will you also place responses to his queries in the record?

Mr. NASH. Yes, sir.

(The material referred to follows:)

RESPONSES TO SENATOR YOUNG'S QUESTIONS

Question. I note that your budget contains $688,000 for the construction of buildings and utilities in North Dakota during 1965. What would be the nature of these buildings, their cost, and where would they be located?

Answer. The fiscal year 1965 budget contains $688,000 for the construction of buildings and utilities in the State of North Dakota. Following is the information regarding the type of work proposed, their estimated cost and location.

| Location | Type of work | Estimated cost |
|---|---|---|
| Fort Totten | Jail construction | $150,000 |
| Fort Yates | do | 250,000 |
| Do | Quarters construction | 228,000 |
| Mandaree | Well and pumphouse | 39,000 |
| Fort Yates | Kitchen remodel | 14,600 |
| Great Walker | Fire escapes | 6,400 |
| Total | | 688,000 |

Question. I understand the Bureau of Indian Affairs proposes to raze one of the two old dormitories at the Wahpeton Indian School and later to construct an additional new one.

When do you expect you will need the new dormitory?

Answer. It is planned to raze one of the two existing old dormitories at Wahpeton. A new dormitory to replace the other old dormitory is in the Bureau's long-range construction program, but the time schedule for replacement has not been determined.

Question. What is the estimated cost of this dormitory, and how many children would it accommodate?

Answer. The proposed new dormitory is estimated to cost $540,000, and it will provide accommodations for 160 students.

Question. Were funds for this dormitory requested of the Bureau of the Budget?

Answer. A request for construction funds for the proposed dormitory was not made.

Question. The Turtle Mountain Chippewa are most anxious to have a tribal enrollment program undertaken. As I understand it, such a program will have to be undertaken in connection with the pending settlement of the Red Lake and Pembina claims?

Answer. A Turtle Mountain tribal roll was approved by the Secretary of the Interior in 1943, but this roll has not been properly maintained in the intervening period. Consequently, it is now out-of-date. The Bureau does not at present have sufficient enrollment staff to undertake this large responsibility without neglecting its efforts to compile rolls of claims beneficiaries, which must be regarded as having higher priority.

At the present time it is not clear whether updating the Turtle Mountain roll will be necessary in connection with the pending settlement of the Red La e and Pembina claims. While it appears quite probable that certain of the Indians affiliated with the Turtle Mountain Tribe may be eligible to share as beneficiaries in these claims, it is far from certain that this sharing will be based on their membership in the Turtle Mountain Tribe.

We have instructed the superintendent of the Turtle Mountain Reservation to assign work on this roll to members of his staff who will, of course, also have to perform other duties. This approach does not offer much possibility for completion of the roll in the near future.

Question. When do you anticipate starting this enrollment program, and how much do you anticipate it would cost?

Answer. As indicated previously, we are in a limited way undertaking work on the roll at present. To make a real start on the problem, we would have to employ at least one enrollment officer and one clerk at Turtle Mountain at an annual cost of $12,000. We believe that completion of the task would take more than 1 year.

Question. If funds were provided to initiate this program, how much would be required for fiscal 1965?

Answer. $12,000.

Question. From all reports the building housing the jail at Fort Totten is extremely old and very inadequate. What plans do you have for replacing this jail; and when do you anticipate you will be able to seek construction funds for this? How much will it cost?

Answer. At Fort Totten the old laundry building which was converted to a jail is in very poor condition and is inadequate for the prisoner load. Funds amounting to $150,000 for the replacement of this jail are in the fiscal year 1965 budget request.

Chairman HAYDEN. If there is no further business, this committee will recess until February 24 when we will take up the Bureau of Outdoor Recreation and the National Park Service.

Thank you for appearance.

(Whereupon, at 11:25 a.m., Friday, February 21, 1964, the committee recessed, to reconvene at 10 a.m., February 24, 1964.)

29-120—64——16

# DEPARTMENT OF INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1965

MONDAY, FEBRUARY 24, 1964

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, D.C.*

The subcommittee met at 10 a.m., pursuant to recess, in room 1223 of the New Senate Office Building, Hon. Carl Hayden (chairman) presiding.

Present: Chairman Hayden, Senators Bible, McGee, Bartlett, and Mundt.

## DEPARTMENT OF THE INTERIOR

### BUREAU OF OUTDOOR RECREATION

### STATEMENT OF EDWARD C. CRAFTS, DIRECTOR, BUREAU OF OUTDOOR RECREATION; ACCOMPANIED BY LAWRENCE N. STEVENS, ASSOCIATE DIRECTOR; AND HARRY W. RICE, CHIEF, DIVISION OF ADMINISTRATION

#### FISCAL YEAR 1965 BUDGET PRESENTATION

Chairman HAYDEN. The committee will be in order. For fiscal year 1965, the Bureau of Outdoor Recreation proposes a budget of $2,700,000, an increase of $800,000 over the appropriation for fiscal year 1964. The justification for this estimate will be included in the record.

(The statement referred to follows:)

#### SALARIES AND EXPENSES HIGHLIGHT STATEMENT

In order to promote the coordination and development of effective programs relating to outdoor recreation, the Secretary of the Interior in April 1962, established the Bureau of Outdoor Recreation. The Bureau has since been given a charter by the Congress in the passage of the act of May 28, 1963 (77 Stat. 49), which states in part:

"* * * That the Congress finds and declares it to be desirable that all American people of present and future generations be assured outdoor recreation resources, and that it is desirable for all levels of government and private interests to take prompt and coordinated action to the extent practicable * * * to conserve, develop, and utilize such resources for the benefit and enjoyment of the American people."

This statement of congressional policy is the foundation on which the Bureau builds its programs.

The Bureau is requesting a total of $2,700,000 for 1965, an increase of $800,000 over the amount appropriated in fiscal year 1964. The increase is needed for work on the nationwide recreation plan, to assist the States in developing statewide plans, to investigate special areas being considered for recreation development, and to strengthen the Bureau's coordinating function, particularly in the review of programs, budgets, and legislation of other Federal agencies.

The Bureau's program for 1965 is based on the ultimate objective of providing adequate outdoor recreation opportunities to meet the needs of the public. It is essential that action be taken now toward providing for the future more and better outdoor opportunities so that the Nation's citizens may use their leisure hours in the pursuit of constructive and healthful outdoor activities. Increases in population, leisure time, personal income, and mobility have combined to greatly expand the demands for outdoor recreation. The Congress has recognized that action in this field is a public as well as private responsibility.

Most outdoor recreation areas now are overcrowded and inadequate to meet current demands, and these demands are increasing at a very rapid rate. With the Nation's population expected to reach 350 million by the year 2000, just 37 years from now, it is important that immediate action be taken. The increase in demand is illustrated in the following tabulation which compares visitations to certain areas in 1952 and in 1962:

[In millions]

| Areas | Number of visitations | | |
|---|---|---|---|
| | 1952 | 1962 | Percent increase |
| Corps of Engineers water projects | 30.0 | 126.7 | 322 |
| Forest Service areas | 33.0 | 112.8 | 242 |
| National Park Service areas | 47.4 | 97.0 | 105 |
| National wildlife refuges | 4.3 | 10.9 | 153 |
| Tennessee Valley Authority projects | 19.8 | 45.0 | 127 |
| Bureau of Reclamation projects | 7.7 | 27.0 | 251 |
| State parks | 149.3 | 284.8 | 91 |

The population of the United States stood at 184,970,000 in 1962, an increase of 28,577,000 or 18 percent over 1952. The above table illustrates that participation in outdoor recreation activities by the public is increasing at a far greater rate than the population growth. This fact adds emphasis to the need for concerted action in increasing outdoor recreation opportunities.

Current annual expenditures by participants in all phases of outdoor recreation total about $20 billion. Such a sum has a definite impact on the economy of the Nation. As an indication of its magnitude, the $20 billion annual expenditures for outdoor recreation participants approximate the annual expenditures for education in all of the Nation's elementary and secondary schools.

One of the primary functions of the Bureau, and the one which has top priority, is to formulate and maintain a comprehensive nationwide recreation plan. The funds requested for 1965 will allow the Bureau to accelerate the preparation of such a plan so as to meet the deadline set by Congress for its completion. This plan will identify current and future demand for outdoor recreation throughout the country, the resources currently available and those potentially available for the future, and will include recommendations as to how the needs can be met most effectively. The nationwide recreation plan will be built, in a large part, on plans developed by States. For this reason, the Bureau will give increased assistance to the States in the development of their plans.

Heretofore, assistance has been furnished to States covering a wide range of service-type activities. The Bureau proposes to discontinue furnishing such service-type activities to State and local agencies, as well as Federal agencies, and concentrate its efforts on the development of the nationwide recreation plan and to strengthening its program of Federal coordination.

The Bureau will be faced with a heavy load in reviewing special areas that offer outstanding recreation potential. In addition to areas presently scheduled for study, it is expected that data developed under the nationwide recreation plan will pinpoint other areas that should be reviewed carefully. This phase of the Bureau's program has a special sense of urgency, because if action is not taken soon to preserve these areas for recreation, they will be lost forever for that purpose either by preemption for other use or by becoming prohibitively expensive.

The Bureau will strengthen its Federal coordination function and will assist the Secretary in carrying out responsibilities assigned to him by the President under Executive Order 11017, issued April 28, 1962. That order directed the Secretary, in consultation with other members of the Recreation Advisory Council, to develop methods and procedures for improved interagency coordination in the

development and carrying out of national outdoor recreation policies and programs.

The Bureau has initiated a comprehensive approach to Federal coordination. In accordance with the authority in the act of May 28, 1963, the Bureau will commence an intensive review of the authorities, functions, programs, budgets, operations, and proposed legislation of Federal agencies engaged in outdoor recreation activities.

The Bureau will prepare a comprehensive report encompassing the recreation activities of the entire Federal Government. This report will point out overlaps and gaps in the Federal effort, effectiveness of Federal expenditures, omissions and conflicts in Federal policy, and recommend any adjustments that are believed to be needed in administrative responsibility, budgets, policy clarification, Federal-State relations, and legislative needs. The new approach to Federal coordination will provide the Congress and the executive branch of the Government with data on which to make basic policy decisions.

Through its program of Federal coordination, the Bureau has a unique opportunity to contribute to the efficiency of Federal Government operations. For example, about $100 million are expended annually for acquisition of recreation lands or lands that have recreaction capabilities. Large sums are spent for recreation research and for operation and maintenance of recreation facilities. The Bureau is the one agency in the Federal Government where all projected expenditures for outdoor recreation activities can be summarized and reviewed by specialists in this field. This has never been done before although the Bureau did accumulate and review proposed Federal expenditures for fiscal year 1965–66 for outdoor recreation land acquisition and for research.

It is estimated that all agencies of the Federal Government expend an estimated $300 million annually in programs directly related to outdoor recreation. The need for an impartial review of these programs is obvious. The Bureau's total request for funds is less than 1 percent of this figure.

The Bureau will devote efforts to recreation planning in river basins and at water resource projects mainly on a reimbursable basis from other agencies. These areas offer tremendous potential for meeting the needs of the public for water-oriented recreation. These studies will be conducted in most instances as part of the comprehensive river basin review being conducted by various Federal agencies under coordinated direction and will contribute to the nationwide planning effort. The Bureau also will give attention to improving methods for determining and evaluating recreation benefits and cost allocations on Federal reservoir projects.

The Bureau will assist to a very limited degree, educational institutions and others in establishing education programs and activities and to encourage public use and benefits from outdoor recreation. To this end, planning has been initiated for holding a national conference on outdoor recreation education in July 1964 under the joint sponsorship of Syracuse University; State University of New York, College of Forestry; and the Bureau of Outdoor Recreation.

The increase requested for fiscal year 1965 is needed if the Bureau is to meet the deadline imposed by Congress on the submission of the nationwide recreation plan and if it is to carry out an effective Federal coordination program. The Bureau has lacked adequate manpower to handle its work. A recent recapitulation shows that over 27,000 hours of uncompensated overtime have been worked by the Bureau's small staff since January 1, 1963, yet over 400 requests for technical assistance have been rejected; and $75,000 worth of needed travel has not been made. We firmly believe that through its planning and coordinating role the Bureau can save the Government the amount of the Bureau's budget request many times over.

*Salaries and expenses*

| | |
|---|---|
| Appropriation, 1963: | |
| Transferred from "Management and protection, National Park Service" pursuant to Reorganization Plan No. 3 of 1950 | $1,101,096 |
| Supplemental appropriation | 100,000 |
| Total available, 1963 | 1,201,096 |
| Appropriation, 1964 | 1,900,000 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | |
|---|---|
| Planning and cooperative services: | |
| To provide for increased pay costs for fiscal year 1964 positions | 30,000 |
| To provide for salaries and other expenses for expansion of work on the nationwide recreation plan; assisting States in developing statewide plans; and conducting or coordinating studies of specific areas to determine their recreation potential | 340,000 |
| Coordination, education, and research: | |
| To provide for increased pay costs for fiscal year 1964 positions | 14,000 |
| To strengthen the Federal coordination function by making comprehensive studies of proposed outdoor recreation programs and expenditures of other Federal agencies so as to minimize duplication, clarify policies, recommend where dollars can be saved, and where legislation may be needed | 416,000 |
| Net increase, 1965 | 800,000 |
| Budget estimate, 1965 | 2,700,000 |

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. Planning and cooperative services | $848,601 | $1,230,000 | $1,600,000 | $370,000 | $30,000 | $340,000 |
| 2. Coordination, education, and research | 350,732 | 670,000 | 1,100,000 | 430,000 | 14,000 | 416,000 |
| Unobligated balance lapsing | 1,763 | | | | | |
| Total | 1,201,096 | 1,900,000 | 2,700,000 | 800,000 | 44,000 | 756,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*1. Planning and cooperative services*

| Subactivity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Planning and surveys | $548,601 | $735,000 | $1,093,000 | $358,000 | $18,000 | $340,000 |
| (b) Cooperative services | 300,000 | 495,000 | 507,000 | 12,000 | 12,000 | |
| Total | 848,601 | 1,230,000 | 1,600,000 | 370,000 | 30,000 | 340,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

(a) *Planning and surveys*

The estimate for 1965 is $1,093,000, an increase of $358,000 over 1964. The increase includes $18,000 for pay costs and $340,000 for program responsibilities.

*Need for increase.*—The increase requested is to provide for salaries and other expenses for expansion of work on the nationwide recreation plan, mainly at the

regional level and for conducting or coordinating studies of specific areas to determine their recreation potential.

*Plan of work.*—Under the act of May 28, 1963 (77 Stat. 49), the Bureau has responsibility for formulating and maintaining a nationwide outdoor recreation plan, taking into consideration the plans of the various Federal agencies, the States, and their political subdivisions. The nationwide recreation plan will evolve in large part from the planning programs of Federal agencies, of States and their political subdivisions, and of private groups. The Bureau will maintain contact with these groups and obtain from them all data that are usable rather than duplicate that which is available.

The plan will set forth the needs of the American people for outdoor recreation of all kinds and the current and foreseeable availability of resources to meet these needs. It will recommend the actions that should be taken at each level of government and by private interests to provide adequate outdoor recreation opportunities.

The act of May 28, 1963, which was enacted to promote the coordination and development of effective programs relating to outdoor recreation, provides that the nationwide plan shall be prepared as soon as possible for submission to Congress but no later than 5 years from the date of the act. The Bureau's goal is to have a complete plan ready by January 1967 for submission to the President and to the Congress.

The inventory and classification phases of the nationwide plan, aside from other phases, will involve the collection, tabulation, and organization of at least 25 items of information concerning many thousands of existing and potential urban and nonurban outdoor recreation areas. Also involved will be the collection of data on recreation "demand" broken down into approximately 5,000 units, and on administrative agencies broken down into some 2,000 units. Studies made in prior years will be updated and new studies undertaken to provide current and meaningful information for inclusion in the plan. In order to handle this volume of material in the most efficient and effective manner, and to interplay these major components in determining means to meet growing recreation needs, the use of automatic data processing techniques and equipment becomes essential.

Since its creation, the Bureau has been engaged in conducting or coordinating studies of specific areas to determine whether the areas should be managed for public outdoor recreation purposes and, if so, to recommend the suitable types of development, and the proper agency and level of Government to administer the areas. Desirable outdoor recreation areas are fast disappearing for other purposes, and the Bureau realizes the urgency of moving ahead in this program. The Bureau has made studies or participated in studies of a significant number of areas in the past years to review their recreation potential. Some of the more important ones include Assateague Island off the coast of Maryland; Fire Island, N.Y., Allagash River, Maine, Northern Cascades in Washington, and Whiskeytown-Shasta-Trinity area, California. There are at least 30 areas proposed by one group or another for establishment as national parks, national lakeshores, national seashores, national rivers, or national recreation areas. Reports have been submitted to Congress on about one-third of these areas recommending that they be established.

During fiscal year 1965, it is estimated that about a dozen studies of special areas will be made. In the past, these studies have been based on requests from the Secretary of the Interior, the Recreation Advisory Council, the Secretaries of the Interior and Agriculture jointly, and sometimes from Members of Congress. The studies vary in scope and complexity. Some are handled by the Bureau staff alone, others are joint projects with other agencies, both Federal and State.

*Status of planning and surveys program.*—A comprehensive manual of instructions has been prepared setting forth the procedures for developing the nationwide recreation plan, and a systems analysis is being undertaken in cooperation with the Bureau of Standards for assimilating the necessary information by means of automatic data processing techniques and equipment. Preliminary work has commenced to implement the plan. Maps are being accumulated and existing areas are being plotted. Data available from ORRRC, from Federal agencies, and from States are being screened with the view toward using all that is meaningful. The development of the nationwide recreation plan ranks among the first in order of priority over other Bureau responsibilities.

To illustrate the types of studies in which the Bureau concerns itself, comments follow on two joint projects recently undertaken:

1. The Departments of the Interior and Agriculture have cooperated in a study of over 60 of the Nation's free-flowing rivers to define the need to protect and

conserve a share of these rivers, or portions thereof, in their natural, free-flowing condition. A study team has selected sections of 12 rivers with outstanding recreation potential for additional detailed study. These studies could lead to designation of a nationwide system of free-flowing portions of rivers.

The segments of rivers selected for detailed study include the three forks of the Flathead in Montana, the Skagit and its Sauk and Suiattle tributaries in Washington, the Rogue in Oregon, and the Klamath in California, the Rio Grande in New Mexico, the Upper Green in Wyoming, and the Niobrara in Nebraska.

Also selected are the St. Croix and Namekagon in Minnesota and Wisconsin, the North Branch of the Susquehanna in New York and Pennsylvania, the upper Hudson in New York, the Big South Fork of the Cumberland in Kentucky and Tennessee, and the headwaters of the Savannah in North Carolina, South Carolina, and Georgia.

2. Another joint project of considerable scope and complexity has been undertaken by the Bureau. This is the Lewis and Clark Trail plan. It involves the conservation, recreation, historic, and fish and wildlife values in 10 States along the route of the famous expedition from St. Louis to the Pacific. The Bureau is conducting this study in cooperation with the Departments of Agriculture, Army, Commerce, other Interior bureaus, the 10 States along the trail, and with local and private interests.

The purpose of the project is to formulate a plan by which the resources of the trail can best be identified, developed, and made accessible for public use. This project has received strong encouragement from Congress through passage of a joint resolution. Planning activities are underway, and field studies are scheduled to commence in early 1964. A final report will be available in 1965.

*(b) Cooperative services*

The estimate for 1965 is $507,000, an increase of $12,000 over 1964, which is for pay costs.

*Plan of work.*—The Bureau has changed the emphasis on its assistance to States. Until recently, attempts were made to comply with all requests for assistance from States, counties, and cities. Assistance ranged from broad-scale planning of potential areas to providing advice on financing and operation problems. The Bureau could not meet these demands with available staff and further concluded that such detailed service-type of assistance was not its proper role. Accordingly, it has restricted its services to States to the development of statewide plans. Special attention will be given to the efforts of States in developing State plans and the Bureau will provide technical assistance to the extent of available manpower in helping the States with their plans. Benefits from State plans are twofold: (1) State plans will be of substantial benefit in the development of the nationwide recreation plan; and (2) an approved State plan will be a prerequisite to a State obtaining financial assistance under the land and water conservation fund legislation now pending in the Congress.

The statewide plans will, in effect, be the building blocks for the development of the nationwide plan, and both the Federal Government and the States will benefit from a coordinated approach to this matter. The Bureau also will encourage States to provide personnel to work with local and private agencies in developing the statewide outdoor recreation plans. The development of statewide plans will involve all State and local agencies providing outdoor recreation as well as the private sector. This coverage will include about 500 State recreation and resource agencies concerned with forestry, land use, water, and fish and game.

Most States are giving increased attention to meeting the demands for outdoor recreation areas. A growing number of State legislative bodes are appropriating more funds, authorizing bond issues, and taking other actions to meet these demands. The increase in interest and activity at the State and local levels should be of material assistance in meeting the long-range objective or providing adequate outdoor recreation areas to meet demands.

The work to be performed under this subactivity also involves the provision of technical assistance to Federal agencies which is required by law. For example:

1. Title VII of the Housing Act of 1961 has as its purpose the curbing of urban sprawl, the preservation of more open space, and the aiding of States and local governments in providing recreation, conservation, and scenic areas within urban complexes. This act authorizes the Administrator of HHFA to make grants to assist in carrying out the purpose of the act. The act provides that the Administrator shall consult with the Secretary of the Interior on the general policies to be followed in reviewing applications for grants, and that the Secretary of the Interior shall furnish him appropriate information on the status of recreation

planning for the areas to be served by the open-space land acquired with the grants.

The Secretary's responsibilities have been delegated to the Bureau of Outdoor Recreation. Funds requested for fiscal year 1965 will be used in part to meet the requests of HHFA for assistance.

2. For a period of 20 years, the Bureau is by law responsible for enforcing compliance with the terms and conditions in the deeds of transfer of Federal surplus real property acquired for park and recreation use. This is accomplished for all properties (255 in August 1963) by review of the grantees' biennial reports and periodic inspections. Additionally, on occasion a grantee requests permission to grant an easement or right-of-way or authorization to enter into a lease with a concessionaire for the operation of certain facilities. In some instances, the grantee requests abrogation of the conditions of the deed upon payment of the unamortized balance. Such a request must be carefully reviewed to determine the desirability of the proposal and whether the granting of the request would be in conformance with the requirements of law. These requests require a great amount of time and expense to determine whether the grantee is meeting the requirements of law. An increased number of transfers is creating a heavy workload in field inspections, contacting local officials (both past and present to secure a complete analysis) and in reporting facts.

3. Other Federal agencies seeking technical assistance of substantial magnitude will be asked to reimburse the Bureau for such assistance.

*Status of cooperative services program.*—Contacts have been made with the Governors of all States, pointing out the functions and objectives of the Bureau, and all but one State have designated an individual State official to serve as liaison with the Bureau. Many States already have funds available or are taking action to obtain financing for outdoor recreation purposes. Also, the States have been informed that technical assistance will be limited to the development of statewide plans. Guidelines have been developed by the Bureau for use of States in preparing statewide plans.

During prior years, technical assistance on various aspects of outdoor recreation programs has been given to States and local agencies on an average of about 500 occasions annually. While substantial manpower will continue to be devoted to State assistance in 1965, it will be directed primarily to the development of the statewide plans.

The latest available reports indicate that about 165 compliance reviews will be made to determine that the property is being used for park or recreation purposes.

*2. Coordination, education, and research*

| Subactivity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Federal coordination | $295,732 | $595,000 | $1,022,000 | $427,000 | $11,000 | $416,000 |
| (b) Research and education | 55,000 | 75,000 | 78,000 | 3,000 | 3,000 | |
| Total | 350,732 | 670,000 | 1,100,000 | 430,000 | 14,000 | 416,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

(a) *Federal coordination*

The estimate for 1965 is $1,022,000, an increase of $427,000 over 1964. The increase includes $11,000 for increased pay costs and $416,000 for program expansion.

*Need for increase.*—The increase requested is needed to enable the Bureau to strengthen its coordination function of reviewing programs, including specific projects, information services, budgets, operations, and legislative proposals, of some 20 Federal agencies with the objective of achieving coordination on a national basis with respect to outdoor recreation programs. These program reviews will seek effective methods of obtaining the greatest recreation value for each dollar expended.

*Plan of work.*—Reviews will be made of the programs, budgets, proposed legislation, authorities, functions, and operations of some 20 Federal agencies (natural resources and other) engaged in outdoor recreation activities. Agencies which are directly concerned with Federal outdoor recreation resources programs and

with which the Bureau will be working in correlating the planning for the development of the full recreation potential of their projects include, among others, the Corps of Engineers, the Tennessee Valley Authority, several agencies of the Department of Agriculture, and agencies of the Department of the Interior, such as the National Park Service, the Bureau of Reclamation, and the Bureau of Sport Fisheries and Wildlife. This correlation will also apply to programs of Federal agencies not involved directly in the management of natural resources but which have programs of significant importance to recreation—such as Public Health Service, Bureau of Public Roads, Area Redevelopment Administration, General Services Administration, and Small Business Administration.

The Bureau is making a definite change in emphasis in carrying out its coordinating responsibilities. Heretofore the Bureau has generally limited its coordinating functions to drafting policy statements for consideration by the Recreation Advisory Council by developing memorandums of agreement between Federal agencies, by joint task force reviews with other Federal agencies (Northern Cascades, as an example), and by analyzing the proposed outdoor recreation expenditures of Federal agencies for fiscal year 1965 for land acquisition and for research. It has also carried out part of its coordinating function by providing service-type recreation planning assistance to many Federal agencies.

The Bureau has initiated and will carry forward into fiscal year 1965 a comprehensive approach to Federal coordination. In accordance with the authority in the act of May 28, 1963, the Bureau will commence an intensive review of the authorities, functions, programs, budgets, operations, and proposed legislation of Federal agencies engaged in outdoor recreation activities.

Attention will be given to the question of whether Federal recreation programs are providing the quantity and type of outdoor recreation resources in the localities where the need exists. The review of Federal agencies' activities will be related to the data that is being compiled for the nationwide recreation plan.

The Bureau expects to prepare as a major effort within a year or two a comprehensive report encompassing the recreation activities of the entire Federal Government. This report will point out overlaps and gaps in the Federal effort, effectiveness of Federal expenditures, omissions and conflicts in Federal policy, and recommend adjustments that are believed to be needed in administrative responsibility, budgets, policy clarification, Federal-State relations, and legislative needs.

During 1965 an effective program of review of Federal agencies' publications dealing with outdoor recreation will be in operation to minimize duplication and overlap and to bring into being more effective publications which will serve to inform the public on pertinent outdoor recreation matters. It is hoped that by combining the efforts of the several agencies with respect to informational materials, that the information needed by the public on locations and types of recreation areas and facilities may be made available more effectively.

During fiscal year 1965, the Bureau will be involved, on a reimbursable basis, in conducting studies of and coordinating the recreation aspects of some of the Nation's major river basins. The increased attention devoted to this matter and the need to reduce overlapping activities result in part from the interest expressed by the Senate Appropriations Subcommittee on Public Works.

Another function performed under this subactivity is the provision of the necessary staff assistance to the Recreation Advisory Council. This Council was established by Executive Order 11017, issued April 28, 1962. The order states in part as follows:

"The Secretary of the Interior, in consultation with the other members of the Council, shall be responsible for developing methods and procedures for improved interagency coordination in the development and carrying out of national outdoor recreation policies and programs."

The principal responsibility for supplying staffwork on Recreation Advisory Council assignments rests with the Bureau of Outdoor Recreation. Depending on the nature of the assignment undertaken at the request of the Council, professional assistance is quite frequently obtained from other departments or agencies. For example, assignments in the fields of public health, water pollution, and scenic highways during fiscal year 1964 required the assignment of competent personnel from the Departments of Health, Education, and Welfare, and Commerce.

Utilizing the guidelines set forth in the Recreation Advisory Council's national recreation policy paper which should be approved in the next few months, and the information gained from budget and program review and interagency coordination activities, work is expected to be undertaken at the Council's request

in developing procedures and guidelines on the several areas of policy consideration including—

1. Development of regulations for charging fees for the recreational use of Federal land and waters;

2. Development of standardized methods for measuring recreational use of Federal areas.

*Status of Federal coordination program.*—The Bureau completed a review of the budgets of Federal agencies for fiscal year 1965 and submitted to the Bureau of the Budget an analysis of its findings.

The review for 1965 was limited to proposed expenditures for Federal land acquisition and research. The analysis related acquisitions of lands by regions for the period under review (1963–66) to demands for outdoor recreation areas in the same regions. The analysis revealed that proposed land acquisitions in some regions would more than meet the demands for outdoor recreation areas in those regions in the foreseeable future.

The Bureau is presently involved in studies of several major river basins for the Corps of Engineers, Bureau of Reclamation, and Public Health Service dealing with aspects of outdoor recreation directly related to programs of those agencies. Most of this work will be financed from funds made available by these agencies.

The Bureau has commenced the preparation of working procedures to be used in carrying out the new comprehensive approach to Federal coordination. This plan will provide the Washington and field employees with specific guidelines for accomplishing this mission.

(*b*) *Research and education*

The estimate for 1965 is $78,000, an increase of $3,000 over 1964, all of which is for pay costs.

*Plan of work.*—The small staff assigned to research functions will devote their efforts to supporting the development of the nationwide recreation plan and to assisting in the review of programs, budgets, and operations of Federal agencies engaged in outdoor recreation, with particular emphasis on Federal agencies' research programs.

There is a real need for the advice and assistance of research-oriented personnel in developing the nationwide recreation plan. Attention must be given to trends in population, income, mobility, and other factors affecting the present and future demands of the public for outdoor recreation, and to devising the best means of relating the demand to the present and potential supply of outdoor recreation opportunities.

The small research staff also will be of valuable assistance in carrying out the new approach to Federal coordination. Millions of dollars are expended by Federal agencies in research programs related directly or indirectly to outdoor recreation activities. These programs need to be reviewed under the same criteria that will be followed in reviewing other outdoor recreation programs.

Because the Bureau has decided to concentrate its efforts in developing the nationwide recreation plan and in conducting a comprehensive Federal coordination program, its staff will not engage in the conduct of specific research projects not related directly to these two functions.

Also, the Bureau will not be able to assist in establishing outdoor recreation education programs and activities in educational institutions other than on a very limited basis. Its educational activities will be limited mainly to co-sponsoring with Syracuse University and the State University of New York College of Forestry a national conference on outdoor recreation education in July 1964.

*Status of research and education program.*—The Bureau, in cooperation with the University of Michigan, held the First National Conference on Outdoor Recreation Research at Ann Arbor, Mich., in May 1963. The proceedings of the Conference, which dealt with important facets of outdoor recreation research, have been printed by the university and distributed to agencies and individuals concerned.

Information on outdoor recreation research programs of other Federal agencies and their proposed expenditures for fiscal year 1965 was obtained, analyzed, and included in a report to the Bureau of the Budget. Also, statistics on State activities in outdoor recreation were compiled and are being printed. These data include information covering acreage used for recreation, types of usage, expenditures, and other pertinent material.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $1,199,333 | $1,900,000 | $2,700,000 | $800,000 |
| Unobligated balance lapsing | 1,763 | | | |
| Appropriation | 100,000 | 1,900,000 | 2,700,000 | 800,000 |
| Transferred from "Management and protection, National Park Service" | 1,101,096 | | | |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 868,092 | 1,460,000 | 1,818,000 | 358,000 |
| 12 Personnel benefits | 59,030 | 110,000 | 138,000 | 28,000 |
| 21 Travel and transportation of persons | 77,243 | 130,000 | 195,000 | 65,000 |
| 22 Transportation of things | 11,455 | 15,000 | 20,000 | 5,000 |
| 23 Rents, communications, and utilities | 27,342 | 55,000 | 79,000 | 24,000 |
| 24 Printing and reproduction | 27,330 | 45,000 | 65,000 | 20,000 |
| 25 Other services | 35,908 | 15,000 | 287,000 | 272,000 |
| Services of other agencies | 29,400 | 25,000 | 35,000 | 10,000 |
| 26 Supplies and materials | 14,410 | 15,000 | 25,000 | 10,000 |
| 31 Equipment | 49,123 | 30,000 | 38,000 | 8,000 |
| Total obligations | 1,199,333 | 1,900,000 | 2,700,000 | 800,000 |

Chairman HAYDEN. Mr. Crafts, you may present your statement to the committee as you desire.

Mr. CRAFTS. Thank you, Senator Hayden. It is a pleasure to appear before you again this year. On my right is Mr. Stevens, the Associate Director of the Bureau, and on my left is Mr. Rice, Chief, Division of Administration of the Bureau.

I would like to brief my statement, Senator Hayden.

Chairman HAYDEN. Do that and let it appear in full in the record.

(The statement referred to follows:)

HIGHLIGHTS STATEMENT OF EDWARD C. CRAFTS, DIRECTOR, BUREAU OF OUTDOOR RECREATION

Mr. Chairman and members of the committee, this is only the second time that this Bureau has come before your committee to request funds for its operations. The Bureau of Outdoor Recreation, as you know, is a small, new Federal office created in April 1962, by President Kennedy in accord with one of the major recommendations of the Outdoor Recreation Resources Review Commission.

That Commission was a bipartisan one created by Congress. It was made up of four Members of the House, four Members of the Senate, and seven Presidential appointees. One of its recommendations was for a small Federal bureau to coordinate Federal activities in outdoor recreation, to serve as a focal point between the Federal Government and the States, and to provide assistance to other levels of government and the private sector. It was thus that we came into being.

ORGANIC ACT

Since we appeared before you a year ago, Congress has enacted a significant statute, Public Law 88–29, commonly referred to as the organic act for the Bureau of Outdoor Recreation. This act established a congressional policy that it is desirable for all levels of government and private interests to take prompt and coordinated action to develop and use outdoor recreation resources for the benefit of the American people. Thus this activity has been recognized by the Congress as a public responsibility.

That act likewise authorized a number of specific functions.

It directed the Secretary of the Interior to prepare within 5 years for transmittal to the Congress a comprehensive nationwide outdoor recreation plan.

It authorized technical assistance to States and to the private sector. It authorized research and the sponsorship of research. It authorized cooperation with educational institutions in establishing their programs and curriculums. It authorized cooperation with Federal agencies and promotion of coordination of Federal recreation plans and activities in all departments and agencies.

It further included a directive that the Federal departments and agencies carry out their activities in outdoor recreation in conformance with the nationwide plan when it is completed.

The question now remains as to what extent Congress wishes to implement the policies, directives, and authorities above referred to by making funds available to carry them out.

### Realinement of Activities

During the first year of our operations, we had $1.1 million made available to us from funds previously appropriated to the National Park Service. We also received a supplemental appropriation of $100,000. In the current fiscal year, Congress appropriated $1.9 million. We are requesting $2,700,000 for fiscal year 1965.

During the present year, particularly since the passage of the organic act last May, we have started to initiate the activities authorized, develop programs of work, and establish priorities.

Difficulties have been encountered in many respects. Perhaps the foremost is that we have found that there was a great demand by other Federal agencies, the States and their political subdivisions, and by private groups of all sorts for service-type consultation and advice on a nonreimbursable basis. We have received hundreds of requests for choreboy service-type activities, the results of which the recipient can elect to accept or ignore as he sees fit.

At first we tried to be responsive. But this Bureau was created as a policy-making, planning, and coordinating office, not as a service agency. So, within recent months, there has been a major realinement of our thinking. We have decided that within the fund limitations presently imposed, as well as within those that may be reasonably expected next year, we should cut out the multitude of nickel and dime activities that we could undertake and that would dissipate our meager strength. Instead, we believe that we should concentrate on two and only two major undertakings authorized in the act. We think such concentration would result in consequential progress and better service to the American public.

We have decided, therefore, to limit our activities largely to (1) aggressive preparation of a nationwide outdoor recreation plan, including assistance to States in the preparation of statewide plans that will fit into the national plan, and (2) coordination of outdoor recreation activities among the numerous Federal agencies involved.

This means that we have decided for the time being to deemphasize certain activities specifically authorized by the Congress in our organic act. These include, for example, research and the sponsorship thereof, informational activities, cooperation with educational institutions, technical assistance to the States other than statewide planning, technical assistance to the private sector, and service-type activities to the other Federal agencies.

I cannot underscore too strongly that this drawing in and concentrating on two primary activities has been a major, and I might add, a painful program decision. The activities that we are deemphasizing temporarily are extremely important. I hope in time our facilities will be sufficient to undertake these other responsibilities authorized by the Congress, but at present they are not.

### Requested Increase for Fiscal Year 1965

We are requesting a total appropriation for fiscal year 1965 of $2.7 million. This is an increase of $800,000. It can be interpreted as a 42-percent increase. On the other hand, it is substantially less than the level where I have said all along this Bureau should ultimately stabilize. It is only $200,000 more than was requested by the administration a year ago.

This request has been held firm by the administration throughout the rigid budget reconsiderations that occurred in December when the budget was being finally formulated.

The question simply is: Does this committee and the Congress wish to implement the authorities of the act of May 28, 1963, to the extent of $2.7 million and thus permit at least a partial program?

Under such a level of financing, we would conduct two principal activities as follows:

#### NATIONWIDE PLANNING

There would be placed in this activity $370,000 of the requested $800,000 increase. We would carry out the first year of developing the nationwide outdoor

recreation plan. This will include a detailed appraisal of total recreation demands, an inventory of recreation resources and the measurement of recreation needs that can be reasonably met, along with indicated responsibilities between Federal, State, and local governments and the private sector. Here, also, we will render such assistance as we can to States and encourage the development of statewide plans with State funds.

We have about completed guideline manuals for both the nationwide and State plans.

Certain specific projects are included as phases of the nationwide plan. These include the Lewis and Clark Trailway or Sailway study underway in cooperation with 10 States to commemorate the Lewis and Clark Expedition. This study should be completed during the coming year and will result in a recommended program of coordinated State and local action with a minimum expenditure of Federal funds and possibly recommendations for legislation to establish a voluntary coordinating commission.

Another project is a study which, when completed, may recommend that certain segments of the Nation's rivers be preserved in their free-flowing and relatively undeveloped status. Segments of about 15 rivers are now undergoing intensive investigation. This phase, likewise, should be completed next year.

A few specific areas will be studied and some perhaps recommended to the Congress for establishment as national recreation areas or seashores, such as Fire Island on the coast of Long Island, Assateague on the Maryland-Virginia coast, and the Allagash area in northern Maine. There are others that can be named, but these are illustrative.

You may ask why the country needs a nationwide outdoor recreation plan. One answer is that the Congress directed that it be prepared. A more substantive answer is that the Federal Government is currently spending over $300 million a year on recreation and the States and private sector are spending much more. The consumer is spending $20 billion a year, or more than is spent for primary and secondary school education. Recreation is a major element in the economy of many States. With this amount of money involved, some consistent and systematic approach to the activity is obviously needed. Furthermore, looking 30 years ahead, population is expected to double; recreation experiences will at least triple; the 30-hour week may be common, resulting in more leisure time; income will be higher; and highways will be spread all over the land. Outdoor recreation is extremely popular and will be a major way in which the growing population will use its increased income and its expanding leisure time. The country needs to start planning for this now.

### FEDERAL COORDINATION

It is proposed to place $430,000 of the requested $800,000 in the Federal coordination activity. Here, too, this work will include several aspects as described below.

The major undertaking will be the initiation of a comprehensive overall analysis of the outdoor recreation programs and activities of the some 20 Federal agencies now active in this field. This will include both the land and water managing agencies, as well as those having a less direct but nontheless very significant role in the overall picture. Our concept is that, in order to effectively promote Federal coordination, a study should be made of the program activities of those agencies, the expenditures of funds in this field, the areas where policies conflict and where policies have not been formed. There should be prepared for the consideration of the Executive Office of the President, the Recreation Advisory Council, and the Congress an overall review of Federal work in outdoor recreation with recommendations as to resolution of policy conflicts, formulation of policies where none exist but are needed, suggestions as to legislative action that may be needed and where savings may be made or additional expenditures are needed. This is a major undertaking and cannot be completed in 1 year.

We believe there is a need for a program of scenic roads and highways to supplement the Interstate Highway System now under construction. This study should be made primarily in collaboration with the Departments of Commerce and Agriculture. It is proposed to investigate need and to make recommendations as to the scope of such a road program, its standards, costs, methods of financing, and legislative needs.

A study has been underway during the past year by the Departments of Agriculture and Interior to explore and recommend the management and administration of Federal lands and resources in the North Cascade Mountains in the State of Washington. This is an area of vast resources, extreme beauty, rugged

wilderness, and much controversy. The study is about half completed and should be concluded with recommendations to the two Secretaries and through them to the President in 1965.

As part of the Federal coordination program, the Bureau of Outdoor Recreation serves as staff agency to the Cabinet-level Recreation Advisory Council. Among the activities which it is expected that the Advisory Council will ask the Bureau to investigate during the coming year are development of regulations for charging fees for the recreational use of Federal land and waters. This will become particularly significant when the land and water conservation fund bill is enacted.

Other items are the development of standardized methods for measuring recreation use of Federal areas, a clearer delineation of the role of the private sector in providing outdoor recreation, and the identification of public measures needed to assure that private groups provide most of the services and facilities needed.

A continuing Federal coordination responsibility is to assess against the standards established for national recreation areas the various proposals as they approach the point of consideration by the Recreation Advisory Council, by the Bureau of the Budget, or by the Congress. A large number of such areas are proposed each year. Most of them are not suitable. This serves as an effective screening process.

### Major Problems of the Bureau

There are two major "ifs" in connection with the Bureau of Outdoor Recreation. We are still in our infancy. The answer to these two questions will determine whether the country and the Congress believe such an organization as this Bureau is desirable and should be continued, or whether there is either no need for it or it is ahead of its time. I have my own personal strong convictions. However, these policy decisions rest not with me, but with the Congress.

The two "ifs" are—

(1) Whether the Congress will finance the authorizations provided in Public Law 88-29 to the extent necessary to permit a reasonably effective carrying out of the policy adopted by the Congress and the authorities granted therein.

You should know that each Governor has designated an official State liaison officer with this Bureau and that the States are well aware of the authorities which we have now to render technical assistance to them. We have had to advise every State that even with next year's budget we shall have to limit our technical assistance only to statewide recreation planning. We have a backlog of nearly 400 requests for assistance which we cannot handle, and which we have rejected.

It may also interest you to know that this small Bureau of about 180 people put in about $160,000 worth of uncompensated overtime during last year and that we have had to forgo about $75,000 worth of needed travel.

We are especially concerned that we have insufficient funds to render technical assistance to the private sector or conduct or sponsor needed research.

(2) The second "if" is whether the land and water conservation fund bill is enacted and subsequent thereto to what extent the fund created thereby may be appropriated by the Congress. This is the bill that will encourage States to take the leadership in planning, acquiring, and developing outdoor recreation resources and programs through a series of Federal matching grants. Unless such a program of Federal stimulation to the States can be gotten off the ground, there will be an increasing tendency to propose areas for total Federal administration and for the Federal Government to move into the vacuum created by the inaction of numerous States. This would be against the philosophy of the Outdoor Recreation Resources Review Commission report, against my personal philosophy, and against the desire of nearly all States.

Both the House and the Senate have completed hearings on this legislation, and on November 14, the House Committee on Interior and Insular Affairs reported out the bill with accompanying Report No. 900.

It is my feeling that unless the two big "ifs"; namely, implementation of the organic act and the passage of the land and water conservation fund bill are answered in the affirmative, it would unwise for the Bureau of Outdoor Recreation to continue in existence. There is no reason to continue this new office unless after a reasonable time and trial Congress is willing to make it a truly effective instrumentality of the Federal Government.

COORDINATING ACTIVITIES IN OUTDOOR RECREATION

Mr. CRAFTS. This is the second time we have appeared before your committee to request funds for its operations. We are a small Federal bureau, as you know, created about 2 years ago for the purpose of coordinating Federal activities in outdoor recreation, to serve as a focal point between the Federal Government and the States, and to provide assistance to other levels of Government and the private sector.

ORGANIC ACT (PUBLIC LAW 88-29)

Since we were here a year ago, the Congress has passed a new statute, Public Law 88-29, commonly referred to as the organic act for the Bureau of Outdoor Recreation. This act authorized a number of specific functions, including a directive to the Secretary of Interior to prepare a 5-year nationwide outdoor recreation plan to be sent to the Congress and to the President.

It authorized technical assistance to the States and to private parties. It authorized research and cooperation with educational institutions. It further included a directive for the Federal departments to carry out their recreation activities in conformance with the national plan, when it is completed.

IMPLEMENTING THE ORGANIC ACT

The question now is the extent to which the Congress deems it wise to implement the authorizations contained in the statute passed last May.

Our request this year is for $2.7 million in contrast to an appropriation last year of $1.9 million. In the past year and a half, particularly, we have encountered many difficulties. We have been asked to carry on many chore-boy, nickel and dime service type of activities which the requesting agency can accept or ignore, as it sees fit.

Recently, as a result of this, we have had a realinement of our priorities and we have decided to concentrate on three things. The first is the preparation of the nationwide recreation plan. The second is assistance to the States in helping the States prepare a statewide recreation plan.

And, third, is the coordination of activities among the Federal agencies. This means that we have decided, for the time being, to deemphasize research activities, educational activities, technical assistance to the States, other than in their statewide plans.

NATIONAL RECREATION PLANNING AND STUDIES

The request of $2.7 million held firm last December during the budget reexamination by the administration. Under the level of financing proposed for next fiscal year, we would place $370,000 of the requested $800,000 increase in this national planning effort which would include an appraisal of the total recreation demands, an inventory of recreation resources, measurement of recreation needs, and so on.

It would also include certain specific studies such as the Lewis and Clark Trailway or Sailway study, a study of certain of the Nation's wild rivers, with a view to making recommendations to the Congress

as to which segments of which rivers should be perpetuated in their wild status, studies of special areas proposed for national recreation areas or seashores, such as Fire Island on the coast of Long Island, Assateague on the Maryland-Virginia coast, and the Allagash area in northern Maine.

The need for a national recreation plan, I think, is rather obvious. In the first place, Congress has directed that it be prepared.

In the second place, the Federal Government is spending $300 million a year in outdoor recreation activities and the States and private sector are spending much more.

Recreation has a major impact on our economy today. It is expected that the utilization of outdoor recreation resources will more than triple in the next 30 years. And there is a problem, a growing problem, recognized by political scientists and sociologists as to the effective use of leisure time.

### Federal Coordination

We would place $430,000 of the proposed increase in Federal coordination. A concept here is that there should be an overall study of the Federal Government's activities in this field with a view to resolving differences of policy, determining areas where there are policy overlaps or gaps, considering the financial level of various recreation programs, and making recommendations in this field to the Congress and to the executive branch.

I might say, Mr. Chairman, that since we appeared last week before the House, the Secretary, carrying out one of the authorities given to him in the act of last May, has just sent to some of his fellow Cabinet officers and to the heads of a number of independent agencies, as well as the heads of the agencies in the Department of the Interior, a copy of a memorandum to me directing that this overall study be initiated.

I will be glad to make these available to you, for your committee files, if you would like to have them.

Mr. Hayden. A copy of the memorandum may be inserted in the record.

### Coordination in Outdoor Recreation

February 20, 1964.

To: Director, Bureau of Outdoor Recreation.
From: Secretary of the Interior.
Subject: Coordination in outdoor recreation.

Under Public Law 88–29, the Secretary of the Interior, in connection with activities dealing with interdepartmental cooperation is authorized—

"To promote coordination of Federal plans and activities generally relating to outdoor recreation, . . ." (sec. 2(g)).

In that same act, the Congress declared as a statement of policy (sec. 1)—

"That it is desirable for all levels of government and private interests to take prompt and coordinated action to the extent practicable * * * to conserve, develop, and utilize [outdoor recreation] resources for the benefit and enjoyment of the American people."

Section 3 of Public Law 88–29 states:

"In order further to carry out the policy declared in section 1 of this Act, the heads of Federal departments and independent agencies having administrative responsibility over activities or resources the conduct or use of which is pertinent to fulfillment of that policy shall, either individually or as a group, (a) consult with and be consulted by the Secretary from time to time both with respect to their conduct of those activities and their use of those resources and with respect to the activities which the Secretary of the Interior carries on under

authority of this Act which are pertinent to their work, and (b) carry out such responsibilities in general conformance with the nationwide plan authorized under section 2 (c) of this Act."

The authorities granted to the Secretary of the Interior in this act have been delegated to you as Director of the Bureau of Outdoor Recreation in accord with departmental Manual 248.1.1.

In Executive Order 11017 of April 27, 1962, which provided for coordination with respect to outdoor recreation resources and establishing the Recreation Advisory Council, the President of the United States ordered in section 1(b) that:

"The Secretary of the Interior, in consultation with the other members of the Council, shall be responsible for developing methods and procedures for improved interagency coordination in the development and carrying out of national outdoor recreation policies and programs."

Section 2(a) of the Executive order states:

"The Council shall provide broad policy advice to the heads of Federal agencies on all important matters affecting outdoor recreation resources and shall facilitate coordinated efforts among the various Federal agencies."

In the light of the above referred to statute, the delegation of authority thereunder to the Bureau of Outdoor Recreation, and the Executive order, I am requesting that you initiate a broad, overall review of Federal outdoor recreation resource programs and policies.

In this connection you are referred to the letter of August 2, 1963, to me from the Deputy Director of the Bureau of the Budget which requests the assistance of the Bureau of Outdoor Recreation to concerned Federal agencies and to the Bureau of the Budget in an overall analysis of Federal recreation programs and budget estimates.

In furtherance of the authorities and directives of Public Law 88–29 and Executive Order 11017, and in cooperation with the concerned Federal agencies, you are directed to examine present and proposed programs, budgets, and operations of the Federal agencies concerned with outdoor recreation including fish and wildlife resources. You should include in such examinations not only the land and water managing agencies, but also those other Federal agencies whose programs have an impact on outdoor recreation.

In connection with such examinations, you should pay particular attention to questions of policy including gaps, overlaps, and conflicts, as well as long-range programs and financial needs. Your study should point out areas where policy clarifications are needed, recommend policies which your examinations indicate to be desirable, suggest activities that may be curtailed or where expansion is needed, recommend appropriate sharing of responsibility between Federal, State, and local governments and the private sector, and include recommendations for such legislation as you believe may be needed.

The overall objective would be to provide the Executive Office of the President, the concerned Federal agencies, the Recreation Advisory Council, and the Congress a coordinated look at Federal outdoor recreation programs, policies, and expenditures along with recommendations which, if implemented, would result in a coordinated Federal approach, with proper attention to outdoor recreation in relation to other resources and financial needs. Your report should clarify the role of the Federal Government in proper perspective to that of the States and local governments and the private sector.

This is no small undertaking. It can be accomplished only with the full cooperation of the concerned Federal agencies. It is my intention to send copies of this letter with an appropriate request for cooperation to the Bureau of the Budget, to my fellow members of the Recreation Advisory Council, as well as to other Federal agencies not represented on the Advisory Council that have a significant concern with outdoor recreation.

Adequate performance of the task assigned herein may take several years. You are instructed to prepare interim reports on specific policy issues or agencies in accord with a program of priorities which you should develop. For example, certain policy issues worthy of early attention may be coordination of management of recreation lands and facilities at Federal reservoirs, development of coordinated fee policies for recreational use of Federal land and waters, standardized measurement of recreational use of Federal areas, and needed Federal services to encourage private enterprise in providing outdoor recreation opportunities.

Within a reasonable time, an overall coordination report with appropriate recommendations should be completed. This document which would provide the base for effective coordination of recreation activities within the executive branch would be an appropriate companion piece to the nationwide plan for outdoor

recreation likewise authorized by Public Law 88–29 and which is to be submitted to the President for transmittal to the Congress not later than May 28, 1968.

You are instructed to proceed forthwith to carry out this undertaking.

STEWART L. UDALL,
*Secretary of the Interior.*

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FEBRUARY 20, 1964.

To: Under Secretary, Assistant Secretaries, the Solicitor, heads of all bureaus and offices.
From: Secretary of the Interior.
Subject: Coordination in outdoor recreation.

Attached for your information is a copy of a memorandum of instructions which I have issued to the Director of the Bureau of Outdoor Recreation, as well as a letter of transmittal to department and agency heads outside of the Interior Department, informing them of this action and requesting their cooperation.

The heads of agencies of this Department which have responsibilities in outdoor recreation, particularly the National Park Service, Bureau of Land Management, Bureau of Reclamation, Bureau of Sport Fisheries and Wildlife, and the Bureau of Indian Affairs are directed to cooperate fully with the Bureau of Outdoor Recreation in the coordinating function which it has been asked to undertake by my memorandum.

In due course, you will be contacted by officials of the Bureau of Outdoor Recreation.

STEWART L. UDALL,
*Secretary of the Interior.*

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FEBRUARY 20, 1964.

Hon. ANTHONY J. CELEBREZZE,
*Secretary of Health, Education, and Welfare,*
*Washington, D.C.*

DEAR MR. SECRETARY: Enclosed for your information is a memorandum of instructions which I have issued to the Director of the Bureau of Outdoor Recreation directing him to initiate an overall analysis of outdoor recreation programs in the Federal Government.

This memorandum of instructions is in accord with the authorities granted in Public Law 88–29, an act to promote coordination and development of effective programs relating to outdoor recreation, and for other purposes.

In due course, you will be contacted by Director Crafts and his associates in the Bureau of Outdoor Recreation in connection with this assignment and the work of your Department dealing with outdoor recreation. The purpose of this is to carry out the intent of Congress and to be helpful to you.

All agencies of this Department having a responsibility in outdoor recreation are being instructed to cooperate fully.

I trust that I may have your personal assurance of cooperation in carrying out this undertaking. In turn, I can assure you that before any report may be finalized which bears on the activities for which you are responsible, ample opportunity will be provided for review and discussion with you.

Sincerely yours,

STEWART L. UDALL,
*Secretary of the Interior.*

Identical letter sent to the nine individuals listed below:
Hon. Douglas Dillon, Secretary of the Treasury, Washington, D.C. (for the Coast Guard)
Hon. Robert S. McNamara, Secretary of Defense, Washington, D.C.
Hon. Luther H. Hodges, Secretary of Commerce, Washington, D.C.
Hon. Orville L. Freeman, Secretary of Agriculture, Washington, D.C.
Hon. Joseph C. Swidler, Chairman, Federal Power Commission, Washington, D.C.
Hon. Robert C. Weaver, Administrator, Housing and Home Finance Agency, Washington, D.C.
Hon. Bernard L. Boutin, Administrator, General Services Administration, Washington, D.C.
Hon. John E. Horne, Administrator, Small Business Administration, Washington, D.C.
Hon. Aubrey J. Wagner, Chairman, Tennessee Valley Authority, Knoxville, Tenn.

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FEBRUARY 20, 1964.

Hon. KERMIT GORDON,
*Director, Bureau of the Budget,*
*Washington, D.C.*

DEAR KERMIT: Attached for your information is a copy of my memorandum of instructions to the Director of the Bureau of Outdoor Recreation asking him to initiate an overall analysis of the present and proposed programs, policies, budgets and operations of Federal agencies concerned with outdoor recreation. This is in furtherance of section 2(g) of Public Law 88–29 which authorizes the Secretary of the Interior to promote coordination of Federal plans and activities generally relating to outdoor recreation.

Also enclosed is a copy of a letter which I have sent to the indicated department and agency heads as well as a copy of an internal memorandum of instruction to other officials of the Department of the Interior.

I trust that this approach may have the full support and cooperation of all concerned department and agency heads. This is essential if the coordination functions of the Bureau of Outdoor Recreation are to be pursued to a successful conclusion.

Sincerely yours,

STEWART L. UDALL,
*Secretary of the Interior.*

SCENIC ROADS AND HIGHWAYS

Mr. CRAFTS. We are engaged in a study of a proposed system of scenic roads and highways for the Nation. We also are engaged in a study of a very controversial problem in the North Cascade Mountains of Washington which involves the best use of the multiple resources in that area, problems of charging fees on Federal lands for the utilization of recreation purposes of Federal lands and waters and numerous other activities.

I would say there are two major problems confronting this Bureau. We are small, as we are intended to be. The first one I have already mentioned and that is the extent to which Congress decides to implement the authorizations that it has granted.

You might be interested to know that one reason for our concentrating on these three jobs which we have decided to concentrate on is that we have had about 1,000 requests from the States and private parties for this minor type of specific, technical assistance which we have had to refuse.

TRAVEL AND OVERTIME

We have had to forgo about $75,000 worth of travel that we thought was needed. We have put in, in this small Bureau of about 160

people, about $160,000 of uncompensated overtime in the past year.

So the problem of the level to which we can be financed is a major one to us.

LAND AND WATER CONSERVATION FUND BILL

The other major "if" is whether Congress enacts the land and water conservation fund bill which is pending and on which hearings have been completed in the Senate. The bill has been reported out by the House Committee on Interior and Insular Affairs, and is pending now before the Rules Committee in the House.

That bill would enable us to implement another of the major recommendations of the report of the Outdoor Recreation Resources Review Commission; namely, the initiation of a program to enable the States to obtain Federal funds to match State funds which will enable the States to carry on an effective program of recreation planning, acquisition, and development of recreation areas by the States.

Unless these two things, within a reasonable time, come to pass through the policy decisions that Congress will make, I must say to you, in all honesty, I think that the Bureau, without these arms, or these methods of implementation, would be an ineffective agency of the Government. And I would see, in due length of time, no point for us to continue.

Chairman HAYDEN. What is the difference in cost?

FUND BILL IS SELF-FINANCING

Mr. CRAFTS. The funds that we are asking for to perform the functions which we are presently authorized is an increase of about $800,000 this year. The land and water conservation bill is largely a self-financing bill with the moneys coming from user fees, from the sale of Federal surplus lands, from possibly an automobile sticker, and from advance appropriations which would be paid back.

These moneys would go into a fund, but the fund would have to be appropriated by the Congress in the normal procedure. This is a large program, relatively speaking, and when fully operating could yield about $200 million of Federal funds annually.

It is a terminal program. It is for a period of about 25 years.

That concludes my statement, Mr. Chairman. I would be glad to try to answer any questions.

REPORT ON RECREATION ACTIVITIES

Chairman HAYDEN. I note in the highlight statement accompanying your budget justification that the Bureau of Outdoor Recreation will prepare a comprehensive report encompassing the recreation activities of the entire Federal Government. How do you propose to go about this, and when do you expect that such a report will be available for use?

Mr. CRAFTS. I think we will do this on a piecemeal basis. This goes to the materials, which have been inserted in the record. We will do this partly through the Recreation Advisory Council, which was established by President Kennedy under Executive Order 11017 and is comprised of six Cabinet Officers and the Administrator of Housing and Home Finance Agency.

We would pick particular policy issues, a number of which are problems right now, such as the question of charging fees, such as the local administration of federally owned areas, the question of the extent of Federal land acquisition, the amount of Federal research in this field. We would make individual reports on these.

We would try to wrap the whole thing up in 2 to 3 years, and meantime, there would be progress reports.

### Planning in River Basins and Water Resource Projects

Chairman Hayden. I note also that your Bureau will do recreation planning in river basins and at water resource projects, and that these studies will be conducted as a part of the comprehensive river basin review being conducted by various Federal agencies. What percentage of the total comprehensive river basin review is devoted to recreation planning?

Mr. Crafts. I think a relatively small proportion of the total river basin review. It varies by basins. We will carry on, with our own funds, only that portion of river basin work which has a direct relationship to the nationwide plan. We will carry on, for the other agencies, such as the Corps of Engineers, the Bureau of Reclamation, and some others which have primary responsibility for river basin studies, such aspects of the recreation planning on river basins as they wish us to do.

Chairman Hayden. Is that by transfer of funds?

Mr. Crafts. The latter would be by transfer of funds, and, according to the budget, it is estimated we will receive about $206,000 during fiscal year 1964, and in 1965 the probability is about $260,000. Most, but not all, of this would be for basin studies.

### Nationwide Recreation Plan

Chairman Hayden. In your justification you refer to a nationwide recreation plan. Would you please describe this plan briefly to the committee, indicating when it is proposed that the plan will be available for use?

Mr. Crafts. The overall nationwide plan has to be submitted to the Congress by May 1968. We are shooting for about a year ahead of that. We have just completed our manual of instructions to carry out this plan, which I shall also make available for your committee records, and, along with it, a comparable plan, "Guidelines for State Outdoor Recreation Plans."

These two things mesh completely. Basically, what they do, is they appraise the recreation resources, they evaluate the recreation demand, they relate the demand to the resources, and they cannot consider recreation in a vacuum, particularly on land which has other uses.

We must take cognizance in our recreation planning of the other uses needed for these same lands. We are instructed in our act, and we would do so anyway, to consider not only the Federal recreation resources but the State resources and those in the county and local governments, as well as those of the private sector. We must relate the relative responsibility of these to each other.

Chairman Hayden. That is a wide area.

RECOMMENDED PROPOSALS

In connection with your studies of specific areas, do you make specific proposals for construction or other action? If so, briefly what have you recommended with regard to the five areas mentioned on page 9 of your justification—that is, Assateague Island; Fire Island; Allagash River, Maine; Northern Cascades, Wash.; and Whiskeytown-Shasta-Trinity?

NATIONAL SEASHORE ON FIRE ISLAND

Mr. CRAFTS. We have recommended the establishment of a national seashore on a portion of Fire Island. It is to be administered by the National Park Service.

This would require an act of Congress and legislation is pending and a favorable administration position has been taken on this bill.

NATIONAL SEASHORE ON ASSATEAGUE ISLAND

On Assateague Island, we have a report in which we have, likewise, recommended the establishment of a national seashore. Legislation has been endorsed by the administration.

NATIONAL WILDERNESS WATERWAY ON ALLAGASH RIVER, MAINE

On the Allagash River in Maine, we have recommended the establishment of a national wilderness waterway. This, likewise, is in a status of a Department of Interior proposal, and there is no legislation pending on this at the present time.

I might say that the State of Maine has established an Allagash River Authority which is making a study due by the end of this year. We have been in close contact with that authority.

The various points on the proposal that we recommended are controversial and the Secretary has made it clear that his position is fluid on all of these points, except for one.

He believes some sort of control, Federal or State, is necessary along the narrow stretch bordering the waters.

STUDY ON NORTHERN CASCADES, WASHINGTON

The Northern Cascades in Washington is an administrative study by the Departments of Agriculture and Interior. We have made a series of resource background studies that are about completed. We have held extensive hearings in the State of Washington, and we are about to the point of sitting down and trying to come up with some recommendations to the two Secretaries. But this will probably be toward the end of the year before we complete this study.

NATIONAL RECREATION AREA, WHISKEYTOWN-SHASTA-TRINITY

The Whiskeytown-Shasta-Trinity is a proposal for a national recreation area. Most of the land proposed is already in the national forests. This is a three-unit proposal, two of which are to be administered by the Forest Service, one by the National Park Service.

The latter borders the Whiskeytown Reservoir. There is legislation pending on this proposal, and there is a favorable administration position on this proposal.

I believe that completes the list.

FIELD OFFICES TO PERFORM STUDIES

Chairman HAYDEN. Where do you propose to perform such studies in fiscal year 1965?

Mr. CRAFTS. We really do it by a combination. We have set up 6 very small field offices with about 10 to 12 people per office in different parts of the country to carry out some of the studies. It is really cheaper for us to do this rather than concentrate everything here, because it reduces our travel.

So the basic work, now that the field offices have been established, would be carried out, initially, by the field offices and would be reviewed by this office.

Chairman HAYDEN. Last year the Senate committee directed that the amount to be available for research be no greater than $20,000 more than you had in fiscal year 1963. How much did this give you and how does it compare with your proposed research budget for fiscal year 1965?

Mr. CRAFTS. It gave us about $75,000 in fiscal year 1964 and our proposal for 1965 is for no increase in research activities. Because, as I said earlier, we have decided to concentrate on these three areas, the national plan, the statewide plans, and Federal coordination, and to deemphasize, for the time being, our research program.

PROPOSED RESEARCH PROGRAM

The research program we would carry on in the coming year would be the service type of research, methodology research, this type of thing.

Chairman HAYDEN. How large a research staff do you have, and how many personnel did you add to it in fiscal 1964? And, how many do you propose to add in fiscal 1965?

Mr. CRAFTS. We have seven people, including our clerical and secretarial force, and we propose no increase. It is very, very small.

Chairman HAYDEN. Your budget shows $287,000 programed for contract work in fiscal year 1965 compared to only $15,000 in fiscal year 1964. Is this the result of personnel ceilings imposed on you or do you believe that your work can be done more effectively by contract?

PERSONNEL CEILINGS

Mr. CRAFTS. Senator Hayden, I would say it is something of both. We have had personnel ceilings imposed on us, to be very frank with you. And I think if we were not in that situation, we would probably go above the ceilings that we are now faced with.

However, these were adopted by the administration, and I am in a position of supporting the administration's ceilings. The contract work is largely for our activities related to the nationwide plan, such as the tabulation of the data, determining the physical carrying capacity of the lands in relation to utilization of these lands by people, and a number of other items which I could enumerate to you.

We can do this by contract work. I think, if we had complete freedom that, rather than do it by contract, we would prefer to do it ourselves.

MANPOWER AND FUNDS REQUIRED TO ACCOMPLISH PROGRAMS

Chairman HAYDEN. The Bureau is less than 2 years old and probably has not reached the level of staffing and financing needed to accomplish its objectives. Could you give the committee your estimate of what this level will be in manpower and funds, excluding the land and water conservation fund?

Mr. CRAFTS. Excluding the land and water conservation fund, which is quite a different program, I would not like to be held to this because I can only conjecture for you now and I might, with more experience, come lower or higher, but I would think that we would level off permanently, probably in the neighborhood of 400 people or less.

That is about twice our present level, with the funds that would be necessary to carry that staff.

SUPPORT FOR LAND AND WATER CONSERVATION FUND LEGISLATION

Chairman HAYDEN. I assume that the land and water conservation fund legislation will be considered by the Senate this session. I would be interested in knowing how the States and conservation groups feel about this proposed legislation.

Have you any idea what support it has?

Mr. CRAFTS. Yes, we have a very good idea of that, Senator. This land and water conservation fund bill has been in the forefront of attention by conservation and recreation groups around the country, and particularly, by the State governments.

We have a compilation here which is too long to put in the record, but I would like to make it available to the committee, if you would like to have it, which summarizes organizations that are for it.

I can tell you, briefly, that there are 47 States on record for this legislation; not necessarily all the specifics, but the legislation in general. Thirty-two Governors have gone on record for it. These are Governors of both parties. It is not political. There is bipartisan support.

Both President Kennedy and President Johnson have issued statements in support of this bill. We must have about 20 to 25 conservation and recreation organizations, maybe more than that, who are strongly in support of this and I know of only a few isolated cases of opposition. Usually this is opposition to one particular aspect of the bill, rather than to the bill as a whole.

So I would say this bill has the strongest support that I have known of, with respect to a major piece of conservation legislation of this sort in a long, long time.

Chairman HAYDEN. Senator Bible.

Senator BIBLE. Just a few questions, Mr. Chairman. Thank you.

STATUS OF CONSERVATION FUND BILL

What is the status of the land and water conservation fund bill at the present time? Is it before the Rules Committee of the House?

Mr. CRAFTS. That is correct, sir. It was reported before Christmas by the Committee on Interior and Insular Affairs and it is pending before the Rules Committee and Chairman Aspinall has written for a ruling.

Senator BIBLE. Do you anticipate it will get a rule in the reasonably near future?

Mr. CRAFTS. I certainly hope so. And I know this is very high on Mr. Aspinall's list of bills that have come out of his committee. He sent this bill, with a copy of the committee's report, to every Member of the House with a special letter urging that they read it and saying, in his judgment, that it was one of the most important pieces of legislation to come out of his committee in a long, long time.

He further said that those on the Federal level, who were trying to get this recreation program underway and also trying to get the States to carry the bulk of the load—which is part of the philosophy of this Bureau—that this bill provided the vehicle by which the Federal Government could help the States achieve this objective.

Senator BIBLE. Now, you have testified, in response to some questions asked by the chairman, as to your endorsement of Whiskeytown-Shasta-Trinity, which I think is a very fine project. Does that project depend on the passage of this land and water conservation fund bill?

### CONSERVATION FUND BILL AUTHORIZATIONS

Mr. CRAFTS. The land and water conservation fund bill authorizes no project. It authorizes no land acquisition. It establishes a method of financing, of raising money, into a fund which, if appropriated by the Congress, can then be available to Forest Service and Park Service, and the Bureau of Sport Fisheries and Wildlife, for certain acquisitions that are authorized under other action of Congress.

### WHISKEYTOWN-SHASTA-TRINITY RECREATION AREA

In other words, the fund, itself, does not authorize any acquisitions. Therefore, the Whiskeytown-Shasta-Trinity would take an act of Congress coming out of your Public Lands Subcommittee to authorize the establishment of the Whiskeytown-Shasta-Trinity Recreation Area.

Then, if that bill were to pass, moneys from the land and water conservation fund bill would be available for the establishment of that area; the purchase of lands within that area.

Senator BIBLE. I understand that, but does the administration support the Whiskeytown-Shasta-Trinity bill, if the conservation fund bill does not pass?

Mr. CRAFTS. I think the administration supports the Whiskeytown-Shasta-Trinity area on its own merits. And if the conservation fund bill does not pass, then the funds for the establishment of that area would come the way they have historically come in the past in the normal appropriation process from the general fund of the Treasury.

### PUBLIC DEVELOPMENT FUNDS

Senator BIBLE. The reason I asked the question, which I do purposely and with design, is that we now have pending before us the public development of the Indiana Dunes, Fort Larned, Graft House, Tock's Island, Fire Island, Agate Fossile, Big Horn National Monument, Assateague, Guadalupe Mountains, and the Ice Age Park.

And if you and Mr. Hartzog and the Secretary of the Interior are to take a position of holding the line on expenditures, how can you

do that in the face of the requests for this number of parks and seashores, and river systems, and lakeshores? How does it work out economically?

Mr. CRAFTS. Under the terms of the conservation fund bill, if the bill is activated to the extent estimated, there would be available quite a few dollars; roughly $80 million a year for acquisition of areas such as you mentioned plus the areas the Forest Service and others would require.

RECOMMENDED APPORTIONMENT

Now, this would have to be spread out over time. There would be, in the submission of the budget under the conservation fund bill, an indication to the Appropriations Committee each year as to how the moneys would be recommended for apportionment between the eligible Federal agencies and within the agencies as to how they would be recommended among the projects that had been authorized by the Congress.

So, some of these that you mentioned, would have high priority and some of them would not.

Senator BIBLE. You premise your answer on the optimistic note that the conservation fund bill passes, and I think it does have merit, but I think it probably needs some tightening up and some changes. If it does not pass, however, I am wondering what the departmental position is on these various parks, and national monuments, and lakes, and seashore bills.

Maybe it is the same. Maybe you would want to withhold comment on it.

Mr. CRAFTS. I think, because the administration is so strongly behind the conservation fund bill, it has to be premised on the assumption that it will pass. If it does not pass, then I think from a new Congress there would have to be a reassessment as to which of these areas have the higher priority.

FIRE ISLAND AND TOCKS ISLAND

Senator BIBLE. Would you hold back on Fire Island until the fund bill passed?

Mr. CRAFTS. No, sir; I would not.

Senator BIBLE. How about Tock's Island?

Mr. CRAFTS. Both Tocks Island and Fire Island have high priority, particularly because they are close to very large centers of population, and on areas such as Fire Island and Tocks Island, they are expensive, but if you hold back, they become more expensive with the passage of time.

Senator BIBLE. I am frank to say, Mr. Chairman, the Fire Island presentation is one of the best I have ever heard in the time I have been privileged to serve as chairman of the Public Lands Subcommittee, and the great appeal was that it served something in the neighborhood of 16 millions of people.

Mr. CRAFTS. Tocks Island is almost the same.

Senator BIBLE. Yes; and I think they are entitled to high priority, but I was trying to get your thinking in how we balance this out in the face of a strong mandate from a former colleague of ours on Pennsylvania Avenue. But I think you have put my thinking straight.

Chairman HAYDEN. Senator Mundt.

CONSERVATION FUND BILL

Senator MUNDT. I just got back from spending a weekend out in South Dakota and a lot of questions were raised about the land and water conservation fund bill, because people back home do not understand exactly what is involved and to be very frank about it, I want to clear up some questions I have in my own mind.

I want to ask you a couple of questions about that. What would you envision as the kind of establishment on the chain of Missouri River reservoirs out in the Midwest in connection with this program of charging user fees as admission, under the act? I have had a lot of questions about that, and I have had no answers to give.

HOUSE MODIFIED BILL

Mr. CRAFTS. Senator Mundt, under the terms of the bill, as reported by the House committee—and this, I think, is the draft of the bill that I should speak to, because the House committee substantially modified the bill from the way it was originally set up—under the terms of the bill as reported by the committee, the admission fees or entrace fees can be assessed only if certain conditions prevail.

FEE ASSESSMENT

I think they need to be listed and there are four of them.

Areas that are federally administered directly, not under lease to the State or private concessionaires. They need to be areas that are administered primarily for recreation. And this is a very key point, the word "primary." They need to be areas of which Federal facilities are provided at Federal expense, and the areas need to be posted.

Now, most of the reservoirs in the Missouri River, and I am speaking in general here—I think the same would apply to reservoirs on most of the rivers—are built either by the Bureau of Reclamation or the Corps of Engineers.

Senator MUNDT. May I interrupt. The Missouri River chain of projects were authorized under special legislation. Criteria that apply there might not apply to others, so maybe we had better stick to the Missouri River.

Mr. CRAFTS. As far as I know, with respect to the Missouri River, the purpose of the reservoirs was primarily not recreation.

Senator MUNDT. That is correct.

EXCLUSION OF FEES

Mr. CRAFTS. Therefore, we have gone on record in this in response to similar questions from other Members of Congress that on the reservoirs which are not administered primarily for recreation, it would not be possible, under the terms of the House bill, to impose a general admission or entrance fee.

It would be possible to charge a specific user fee for launching facilities, for camping facilities, for this sort of thing, but not a general entrance or admission fee.

LICENSE TO FISH

Senator MUNDT. Would you consider a Federal license to fish on the lake a user fee? Would that be possible?

Mr. CRAFTS. No. There is a specific section in this bill that says that there is nothing in this bill that should be interpreted as a fishing or hunting fee. It is prohibited in the bill.

Senator MUNDT. So unless you made it a general admission, you could not charge the fisherman for the right to fish?

Mr. CRAFTS. Oh, that is right. We could not do that. No; that is specifically prohibited.

Senator MUNDT. I would like to follow up a couple of questions the Chairman asked about your picture of the Bureau in the years to come. It is new. There have been a lot of inquiries from conservation groups that are interested in the Bureau.

FUTURE PLANS OF BUREAU

We have had a lot of widespread support and we still have from people who are curious about its plans in the future. Could you give me any idea of your planning 5 years, let's say, on what would be the optimum number of employees and the size of the budget increase?

Mr. CRAFTS. Yes. I would say that we have three things in mind. One is the carrying out of the planning and coordinating activities under the organic act which has been passed and the assistance to the States in their statewide plans. This, I think, would, as I said, reach an optimum level of about twice our present level to about 400 people and a budget of something in the neighborhood of $5 million.

I specified this before.

The second major activity that we would have would be the administration of the Land and Water Conservation Fund Act, if it were to pass. This is largely a passage of moneys to the States and to the other Federal agencies, and we would have only a relatively small administrative staff to supervise the administration of this program.

I have made no estimates as to the number of people and the amount of dollars it would take, but it would be small.

The third thing that I have had in the back of my mind, which we have not endeavored to implement yet, is another program of State aid which might be somewhat comparable to the farm forestry program which has been so successful over the past years.

This would require authorization by the Congress, but this would be the Federal matching of State funds for paying State employees on State payrolls, who would be recreation experts and who could perform services for the local governments and the private sector.

This would also require a minimum of staff to us and a minimum of Federal dollars spent by the Federal staff.

GRANT-IN-AID PROGRAMS

These are two major grant-in-aid programs that the States are thinking about. One is the Land and Water Conservation Fund Act and the other one is the one I have just mentioned to you. Back of it all is this major philosophy which we are trying to get implemented, and that is that the States and the private sector should carry

the bulk of the responsibility, as far as the public goes, in this recreation field.

Senator MUNDT. When you use the words "private sector," in your description, how do you define that? Give us some examples.

Mr. CRAFTS. The people who are in business.

Senator MUNDT. Do you mean concessionaires?

Mr. CRAFTS. Concessionaires, people who run dude ranches, ski outfits, the people who would run the lodges, or build motels around some of the State or Federal areas. I mean those in the commercial business of supplying recreation.

### PRESIDENT'S WATER BILL

Senator MUNDT. If the President's water bill is passed, how much of the $40 million would you ask for?

Mr. CRAFTS. This has not been decided, Senator. We would have to have an appraisal of how much moneys the States would be in a position to match immediately. This, we would need to know, because, you see, one of the prerequisites is that the States must complete a statewide recreation plan before they are eligible for moneys.

### BILL REQUIREMENTS

So we would need to know how much they would be in a position to match. We would also need to know how this fits within the framework of the Federal-State distribution of moneys because there is a requirement in the bill that it must be 60 percent State and 40 percent Federal Government. But there may be some variation of these percentages in the first 5 years of the program.

And then, I hope I am not confusing you, there is another requirement in the bill that the moneys may be distributed to the Federal agencies only in relation to the paid visitor days.

Now, if this stays in the bill as it is finally passed, this would place most of the money in the National Park Service, because the Forest Service and some of the other agencies are not charging in many of their areas. And there are a number of uncertainties of this sort that would have to be resolved when we see the final pattern of the bill.

There is another one which I am not clear on which says that only moneys can be appropriated after they go into the fund. Well, suppose the bill passes the 1st of July. There would only be in the fund about $3 million and these are moneys that would accumulate from the transfer of the boat tax moneys.

### MONEY DISTRIBUTED ACCORDING TO VISITOR FEES

Now, if this language could be changed to permit moneys to be expended as they go into the fund up to a certain amount——

Senator MUNDT. Do I understand that these funds are earmarked for expenditure on the basis of the type of activities which generated the fund? That is, if you have funds for boat ramps, you use them for boat ramps?

Mr. CRAFTS. No, sir.

Senator MUNDT. You mentioned the Forest Service which leads me to believe that money generated from people visiting national forest preserves would be used for more forest preserves. And then you

would have something like the Robinson-Patman Act where you tax shotguns, and that tax goes to produce more birds to be shot at.

SOURCES OF FEES

Mr. CRAFTS. No, that is not it. This is a transfer of a presently imposed tax on gasoline usage of motorboats to the fund. This is one source.

Another source is user fees on developed Federal areas. Another source is a general entrance or admission fee. Another source is advance appropriations which must be paid back. These all go into the fund.

Senator MUNDT. Into one pool?

GUIDELINE FOR DISTRIBUTION OF MONEY

Mr. CRAFTS. Into one pool. Then, the distribution of the money has a guideline that first of all 60 percent of that fund goes to the States on a 50–50 matching basis.

Senator MUNDT. It stays in the State in which it was raised, do you mean?

Mr. CRAFTS. No, sir. There is a guideline as to how it is to be distributed in the States; 40 percent goes to the Federal agencies, and there is a certain latitude for varying that.

Within the Federal agencies, the money would be distributed among the eligible agencies which are specified in the bill in proportion to the paid visitor day attendance at designated recreation areas, you see.

Senator MUNDT. That is my question. Some kind of earmarking devices are implied by what you say.

Mr. CRAFTS. It is for the executive branch to recommend the distribution of moneys, following this formula. It also has a clause in there, "Except as otherwise indicated by the Appropriations Committee."

Senator MUNDT. We will live and learn as we go along with that.

Mr. CRAFTS. This is a complex bill, and I would be happy to come up to see you and talk with you about it.

Senator MUNDT. I am very much interested in it, and we will pick it up as we go along. I appreciate it.

Mr. CRAFTS. It has very strong support.

Senator BIBLE. Might I ask one question, following what Senator Mundt has asked, Mr. Chairman?

Chairman HAYDEN. Yes.

SANITATION REQUEST

Senator BIBLE. Last week we had before us Mr. Stoddard of the Bureau of Land Management. He asked for a certain sum for helping sanitation and he said the request was limited to four lines—water, forage, garbage, and sanitation.

I asked him the question as to whether or not a visitor to one of these areas would be charged a fee—would have to pay for a stamp to go into this facility.

He mentioned a couple of these that were going into my own State of Nevada, and I think they are badly needed. I understood him to

say that they could issue a regulation to make a visitor's fee applicable to this public domain area.

Do you have any thinking on that, because I think it is very important? I do not think it should be left to the regulation of a bureaucracy. I think the Congress should be in one way or the other on it.

PUBLIC DOMAIN LANDS ENTRANCE FEE

Mr. CRAFTS. There would be no entrance fee to the public domain lands, just as there would be no general admission or entrance fee to forest lands. This has been widely misunderstood. There could be, on certain specific developed camp grounds, that is, on a piece of public domain, or on a specific developed camp ground in a national forest, a user fee for the use of that particular area.

The instruction from the House committee says that the administrator must consider whether it is economically feasible to charge such a fee at this place, the types of facilities that are provided and this sort of thing. There would be no general admission or entrance fee on public domain lands.

Senator BIBLE. I certainly would hope not; because this is a red flag, and I am sure it is the cause of a lot of controversy and objection to the bill.

Mr. CRAFTS. Here, I would go back to the four criteria I named for Senator Mundt. One is that the areas must be administered primarily for recreation, and public domain lands are not administered primarily for public recreation.

Only small areas of them are public campgrounds.

Chairman HAYDEN. Senator McGee.

Senator MCGEE. On pages 9 and 10 of the Bureau's justifications, Mr. Crafts, you have alluded to the plans within your Bureau to develop 30 areas as national parks, national lakeshores, national seashores, national rivers, or national recreation areas.

BIG HORN CANYON NATIONAL RECREATION AREA

Reports have been submitted to Congress on about one-third of these areas, as you say. As far as I know, we still do not have a report to the Congress on one of the other areas that we are very much interested in; namely, the Big Horn Canyon National Recreation Area connected with the development of Yellow Tail Dam and Reservoir.

The Senators from Montana and Wyoming stand as one, as we are all equally concerned in that development. I wonder if you could relate for the record, the status of the report on our legislation?

Mr. CRAFTS. Yes, I would be happy to respond to that question, Senator. I was involved in that just last week. The Department of the Interior submitted a report, a proposed report, on this bill last fall to the Bureau of the Budget. I do not remember the precise time. It was sometime during the fall.

PRIORITY OF DEVELOPMENT

Recently the Bureau of the Budget has raised the question as to the priority of this area in relation to the priority of some other areas. They asked this Bureau to express its independent views on this question of priority of the proposed Big Horn area.

Now this is done, occasionally, in our role of Federal coordination, and we are permitted to act on legislative matters to express our independent views from time to time. And we were, just last week, requested to do this with respect to the Big Horn.

We are in the process now—I worked over the weekend—on preparing our views on this, which will go to the Chairman of the Recreation Advisory Council and, in turn, to the Bureau of the Budget.

And, I presume, upon receipt of those, the Bureau of the Budget will send its report to Congress.

Senator McGEE. You do not then feel at liberty to disclose the criteria for assigning the priority of the project at this time?

Mr. CRAFTS. I would not say I do not feel at liberty to do that. The criteria for the establishment of these areas were adopted by the Recreation Advisory Council. They are printed and are available to you. The Big Horn meet those criteria and there is no question about this.

The question raised by the Bureau of the Budget goes to not whether it meets the criteria of a national recreation area, but as to how it ranks along with all of the others.

BASIS FOR PRIORITY EVALUATION

Senator McGEE. That is my question. What is the basis for assigning this value among other proposals?

Mr. CRAFTS. I will tell you the position that we are taking on this, since you asked me and want to know. It is my feeling that the priority for the creation of recreation areas to be created primarily from private land should be considered in a different category from those that are to be created from lands that are already almost all in Federal ownership.

And, therefore, I think evaluating the priority of Fire Island and Tocks Island, for example, as against Big Horn and Glen Canyon and Flaming Gorge does not make too much sense, because the Big Horn, the Glen Canyon, and Flaming Gorge can be created by an act of Congress with relatively little or no cost for the acquisition of the lands and the establishment of the areas.

It is true that there will be development costs, but it will permit the dedication of these areas for national recreation areas. And the administration of these lands would then know what the ultimate disposition would be, the planning could proceed knowing what the end result would be.

And, therefore, the position which I propose to recommend is that these areas—those three that I have named to you—are primarily in Federal ownership at the present time and should be considered in a class by themselves and not in competition with Fire Island and Tocks Island.

And, therefore, I would recommend that Big Horn be given a high priority.

Senator McGEE. Big Horn, Flaming Gorge, and Glen Canyon, you say?

Mr. CRAFTS. I used those others as illustrations, but the question addressed to us last week related only to the Big Horn.

PRIORITY IN LARGE POPULATION AREAS

Senator MCGEE. I had understood that a higher priority was to be assigned to proposals that are proximate to areas of large population.

Mr. CRAFTS. This does not go so much to the question of priority under the criteria established other than that they have to have access to them of certain numbers of people within a certain radius. I do not remember just what the figure is.

But, with the U.S. highways that are going fairly close to the Big Horn area and with the completion of Interstate 90 which is now under construction, and with our knowledge of the people that visit Yellowstone and Glacier, we know that large numbers of people will get to the Big Horn area.

Senator MCGEE. So that in terms of area population, this is only a factor in determining whether the proposed project met the criteria for development as a national recreation area. Population would have no part to play in this priority of getting down to the business of bringing the projects into being?

STANDARDS OF PRIORITY

Mr. CRAFTS. We have no written standards as to the weighing of a priority. I would not say this had no part to play, but I think the fact that the land is already in Federal ownership is of much significance.

Senator MCGEE. I would not like to see low population States with fewer votes penalized.

Mr. CRAFTS. I do not follow you.

Chairman HAYDEN. These are matters, it seems to me, for legislative decision, not for decision by my committee.

Senator MCGEE. I am interested, Mr. Chairman, in making a record here to determine whether the development of a recreation area out in the West where we have high altitudes and low multitudes would be inhibited by that consideration: the sparse population factor.

Mr. CRAFTS. Well, I would say, Senator, on that question of votes, it is not a factor in my consideration. I am a career employee and have worked in the Government for 30 years, and I attempt to evaluate these things as I see them.

Senator MCGEE. I am not talking about partisan votes, I am talking about totals and surmising as to their correlation with the interest in getting close to large population areas for priority allocation.

FEDERAL OWNERSHIP AND PRIORITIES

Mr. CRAFTS. I think, in general, this is right, but also you have outstanding areas in Federal ownership and the people do travel and they will travel more. And so I think the fact they are already in Federal ownership is paramount in this particular case.

Now, I do not question at all the fact that Fire Island is of high priority since it is so close to New York City as are Tocks Island and as Assateague. These east coast areas are very high priority, but they cost many more millions of dollars to establish than would Big Horn or Glen Canyon.

Senator MCGEE. I would hope that each project would get balanced consideration and that no penalties would attach because of the accident of geography or sparsity of settlement.

WILD RIVERS STUDY

I have one other question while Mr. Crafts is here, Mr. Chairman. On page 10 of the justifications, you also discuss other types of planning and surveys that you anticipate including the "Wild rivers proposal." Among the wild rivers, you allude to the Upper Green River. What kind of controls on egress and ingress and use and so forth do you anticipate would be imposed on the Upper Green River if it were included in such a system?

Mr. CRAFTS. In the first place, we are feeling our way on this wild rivers study. The Upper Green, to a considerable extent, is already in national forest land. Such rivers as we might recommend or such segments of rivers as we might recommend for wild river status would be recommended to the Congress and would require congressional endorsement.

There is no executive authority to designate these with any impact or any significance. We would expect a wild river to maintain its free flowing status, to maintain a reasonable degree of water, water quality, a reasonable degree of stability or continuity of flow, and the preservation of a very narrow strip along the river to preserve its scenic aspects.

This would mean that in those sections that were so designated by the Congress, they could be above or below a major dam development, but in the particular section of the river, if designated by the Congress, it would be dedicated for this purpose rather than for development for hydroelectric power or utilization for water irrigation; this sort of thing.

As I said, we are feeling our way pretty carefully on this.

Senator MCGEE. And this system would ultimately be subject to the action of the Congress? We would not expect to read about it first in the Federal Register?

Mr. CRAFTS. No, sir. All of this would come before the Congress.

Senator MCGEE. I mention that, because we have had some recent experiences that suggest that the Federal Register is good daily reading.

Mr. CRAFTS. No; not as far as this is concerned.

Senator MCGEE. Thank you very much, Mr. Crafts.

Thank you, Mr. Chairman.

Chairman HAYDEN. Are there any further questions?

Senator MUNDT. I have one question, Mr. Chairman.

Chairman HAYDEN. Yes.

LOCATION OF FIELD OFFICES

Senator MUNDT. In connection with the establishment of your six field offices, have you determined where you think they might be located, or the general areas?

Mr. CRAFTS. These offices are now established, Senator. This map shows where they are located and the area that they cover. There is one in Philadelphia, one in Atlanta, one in Ann Arbor, one in Denver, Seattle, and San Francisco. These are very small offices.

Senator MUNDT. There is only one of them in a city where the National Park Service has its regional office, and that is in Philadelphia I believe you are locating these in different communities?

Mr. CRAFTS. The Park Service also has a regional office in San Francisco. We located these from the standpoint of relative ease in transportation to the States, and the concentration of other Federal offices in the particular city. Those were the two primary factors. Our relations with the National Park Service are very fine.

Senator MUNDT. I understand they have about 10 or 12 people in them?

Mr. CRAFTS. That is right.

Senator MUNDT. That is all, Mr. Chairman.

### CORRESPONDENCE FAVORING APPROPRIATION

Chairman HAYDEN. Thank you very much.

A number of letters urging appropriation of the full amount requested for the Bureau of Outdoor Recreation have been received. They will be printed at this place in the record.

(The letters referred to follow:)

U.S. SENATE,
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
*February 17, 1964.*

Hon. CARL HAYDEN,
*Chairman, Appropriations Committee,*
*U.S. Senate, Washington, D.C.*

DEAR CARL: You will shortly be considering the appropriation of the Bureau of Outdoor Recreation in the Department of the Interior. This new Bureau spent $1,201,000 in 1963, is budgeted at $1,900,000 for fiscal year 1964, and has asked $2.7 million for fiscal year 1965.

This letter is to urge you to appropriate the full amount requested by the executive branch.

The Bureau, headed by Edward C. Crafts, formerly of the Forest Service, has been doing an excellent job of "tooling up" and stimulating State, county, and local entities to get to work on the provision of outdoor recreation facilities to meet burgeoning needs.

We have pending in both the House and Senate the land and water conservation bill which will undoubtedly pass. It will provide $150 million annually, or more, for expansion of outdoor recreation facilities in the Nation over the following 10 years. It would be mighty poor economy not to have an agency prepared to make the most effective use of such a large sum. Bureau of Outdoor Recreation is responsible for the development of plans, consultation with the administering agencies and general supervisory operations which will, in a large degree, determine how efficiently far larger sums are to be spent.

I hope your subcommittee will recommend the full budget request.

Sincerely,

CLINTON P. ANDERSON.

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NORTH CAROLINA RECREATION COMMISSION,
*Raleigh, N.C., February 21, 1964.*

Hon. CARL HAYDEN,
*Chairman, Subcommittee on Interior Appropriations,*
*U.S. Senate, Washington, D.C.*

DEAR SENATOR HAYDEN: The North Carolina Recreation Commission has long felt the need for the coordination-advisory assistance of a Federal recreation agency. The record will show that we gave active support to the development of the organic act of the Bureau, some guidance to the shape of its final form and to its passage. We believe, sincerely, in the great need for the excellent services which it, already, is rendering.

For these reasons we send this letter to you in support of the Bureau of Outdoor Recreation's current request for operational funds, in the amount of $2,700,000, for the fiscal year of 1965. We ask that this letter be made a part of the budget hearings record.

The work of the North Carolina Recreation Commission is with public, private nonprofit and private commercial recreation. Thus, with the vastly increased

Federal concern and operational involvement in many new aspects of recreation we know that the Bureau's work assumes new importance, and a much greater amount and depth of responsibilities. Its budget is not only a direct investment, therefor, in societal benefits but is, also, one in the economic future of this country.

Sincerely yours,

RALPH J. ANDREWS, *Director.*

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STATE PARK & RECREATION COMMISSION,
*Augusta, Maine, February 5, 1964.*

Hon. CARL HAYDEN,
*Chairman, Subcommittee on Department of Interior and Related Agencies Appropriations, U.S. Senate, Washington, D.C.*

DEAR SENATOR HAYDEN: I understand that the budget request for the Bureau of Outdoor Recreation will be coming before your committee for consideration in the near future and the Maine State Park & Recreation Commission would like to go on record as supporting the budget as recommended on pages 498 and 499 of the appendix to the budget document for the fiscal year 1965.

Because of the rapidly growing emphasis on the importance of outdoor recreation facilities, both public and private, we feel that it is most important that comprehensive long-range plans be developed for the orderly development of recreational facilities. We subscribe to the principle that it is the State's responsibility in the first instance to develop its own recreational plans but it is also important that the Federal Government produce a nationwide recreation plan encompassing all aspects of outdoor recreation—Federal, State, local, and private. As we understand it, this is one of the basic reasons why the BOR was established and I think those of us who are currently working on our State plans will need all of the assistance we can get from a Federal agency such as the BOR.

Another reason for our supporting the establishment of the BOR has been the fact that we feel there is a great need of coordinating at the Federal level the activities of the many different Federal agencies that are getting into the field of providing outdoor recreation facilities. The fact that the BOR has as one of its objectives the coordination of these efforts is one of the principal reasons we have taken such an interest in the welfare of this new bureau.

It is not convenient for us to be represented at the hearing on this budget but I would like to put this department on record as favoring the proposed operational budget for the Bureau of Outdoor Recreation.

Sincerely yours,

LAWRENCE STUART, *Director.*

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NATIONAL ASSOCIATION OF STATE FORESTERS,
*Augusta, Maine, February 10, 1964.*

Hon. CARL HAYDEN,
*Chairman, Committee on Appropriations,*
*U.S. Senate, Washington, D.C.*

DEAR MR. HAYDEN: The National Association of State Foresters, representing the 50 States, supports and urges acceptance of appropriation figures for the Bureau of Outdoor Recreation, U.S. Department of Interior, as shown on page 498 of President Johnson's printed budget for fiscal year 1965. These operating, departmental funds will greatly assist the States in the preparation of statewide plans as part of an overall nationwide recreation plan.

Our association submits this statement as part of the hearings record.

Sincerely yours,

AUSTIN H. WILKINS,
*Chairman, Legislative Committee and Forest Commissioner of Maine.*

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AMERICAN RECREATION SOCIETY, INC.,
*Washington, D.C., Feburary 21, 1964.*

Hon. CARL HAYDEN,
*Chairman, Committee on Appropriations,*
*U.S. Senate, Washington, D.C.*

DEAR SENATOR HAYDEN: The American Recreation Society wishes to record its approval and support of the budget request as made by the Bureau of Outdoor Recreation, U.S. Department of Interior, for the fiscal year 1965.

We and other responsible elected officials, representing the fields of municipal, county, and State public recreation, as well as those with whom we work in the industrial, hospital, military, private, voluntary and college recreation areas have carefully analyzed the Bureau of Outdoor Recreation's budget request, contained on page 498–499 of the appendix of the budget for fiscal year 1965 and which is listed under the Department of the Interior.

In representing a goodly portion, thus, of those receiving the services of this Federal agency established in April 1962, the American Recreation Society speaks with direct knowledge as to the importance of these services.

The Bureau of Outdoor Recreation has been rendering important services, insofar as their existing personnel resources permit. We know that this Bureau is in need of the additional, requested, personnel to carry out the duties and responsibilites as identified in the organic act which created this agency.

We, therefore, urge your committee to act favorable upon the budget request as made by the Bureau of Outdoor Recreation. This is in the amount of $2,700,000 for fiscal year 1965.

We ask that this letter be made a part of the budget hearings record.

Sincerely yours,

JAMES S. STEVENS, Jr.,
*Chairman, Legislative Committee, American Recreation Society.*

## NATIONAL PARK SERVICE

**STATEMENTS OF GEORGE B. HARTZOG, JR., DIRECTOR; A. CLARK STRATTON, ASSOCIATE DIRECTOR; C. P. MONTGOMERY, ACTING ASSISTANT DIRECTOR, ADMINISTRATION; HOWARD W. BAKER, ASSISTANT DIRECTOR, OPERATIONS; J. E. N. JENSEN, ASSISTANT DIRECTOR, DESIGN AND CONSTRUCTION; JACKSON E. PRICE, ASSISTANT DIRECTOR, SPECIALIZED SERVICES; BEN H. THOMPSON, ASSISTANT DIRECTOR, RESOURCE STUDIES; HOWARD STAGNER, DEPUTY ASSISTANT DIRECTOR, RESOURCE STUDIES; THEODOR R. SWEM, ASSISTANT DIRECTOR, COOPERATIVE ACTIVITIES; T. SUTTON JETT, REGIONAL DIRECTOR, NATIONAL CAPITAL REGION; LAWRENCE F. COOK, FIELD ASSISTANT TO THE DIRECTOR; HAROLD G. SMITH, CHIEF OF PROGRAM COORDINATION; CARL O. WALKER, ACTING CHIEF OF BUDGET AND FINANCE**

### SUMMARY TABLES

Chairman HAYDEN. As we begin consideration of the proposed budget for the National Park Service for fiscal year 1965, I shall place in the record a summary table of appropriations, revenues, and visitors to the national park facilities for the years 1933 through 1965; a table showing general fund receipts by sources deposited to the credit of the U.S. Treasury during fiscal years 1963 through 1965; and a comparative summary of the 1964 appropriations with the 1965 estimates.

(The tables referred to follow:)

*Summary of appropriations, revenues, and visitors*

| Year | Appropriations | | | Revenues | Visitors (calendar years) |
|---|---|---|---|---|---|
| | Operating funds | Capital improvements | Total | | |
| 1933 | $2,816,620 | $8,004,000 | $10,820,620 | $628,182 | 3,481,590 |
| 1934 | 2,518,190 | 2,567,600 | 5,085,790 | 729,153 | 6,337,206 |
| 1935 | 6,799,540 | 5,000,000 | 11,799,540 | 905,935 | 7,676,490 |
| 1936 | 9,110,780 | 7,585,500 | 16,696,280 | 1,136,026 | 11,989,793 |
| 1937 | 11,198,395 | 6,635,000 | 17,833,395 | 1,398,692 | 15,133,432 |
| 1938 | 11,052,834 | 10,618,546 | 21,671,380 | 1,508,127 | 16,331,467 |
| 1939 | 12,202,047 | 13,832,650 | 26,034,697 | 1,567,334 | 15,530,636 |
| 1940 | 12,954,267 | 8,144,015 | 21,098,282 | 1,928,078 | 16,755,251 |
| 1941 | 4,622,649 | 4,747,381 | 9,370,030 | 2,179,119 | 21,236,957 |
| 1942 | 5,715,005 | 8,894,770 | 14,609,775 | 2,080,702 | 9,370,969 |
| 1943 | 5,079,342 | 408,023 | 5,487,365 | 1,061,992 | 6,828,420 |
| 1944 | 4,563,560 | | 4,563,560 | 807,601 | 8,339,775 |
| 1945 | 4,736,810 | 4,000 | 4,740,810 | 824,078 | 11,713,852 |
| 1946 | 5,457,125 | 30,250 | 5,487,375 | 1,592,947 | 21,752,315 |
| 1947 | 11,032,334 | 14,995,621 | 26,027,955 | 2,923,587 | 25,534,188 |
| 1948 | 9,660,055 | 968,000 | 10,628,055 | 3,303,328 | 29,858,828 |
| 1949 | 11,542,299 | 2,505,350 | 14,047,649 | 3,467,606 | 31,726,402 |
| 1950 | 15,150,982 | 14,953,868 | 30,104,850 | 3,527,607 | 33,252,589 |
| 1951 | 16,288,200 | 17,687,500 | [1] 33,975,700 | 3,534,372 | 37,106,440 |
| 1952 | 16,878,564 | 11,370,000 | 28,248,564 | 3,568,094 | 42,299,836 |
| 1953 | 18,131,920 | 15,030,410 | [1] 33,162,330 | 4,190,643 | 46,224,794 |
| 1954 | 18,437,550 | 15,416,300 | 33,853,850 | 4,037,551 | 47,833,913 |
| 1955 | 18,494,095 | 14,199,895 | [2] 32,693,990 | 4,914,239 | 50,007,838 |
| 1956 | 20,787,000 | 28,079,300 | 48,866,300 | 5,065,784 | 54,923,443 |
| 1957 | 22,970,000 | 45,050,000 | 68,020,000 | 5,658,040 | 59,284,869 |
| 1958 | [3] 27,581,530 | 48,400,000 | 75,981,530 | 5,744,920 | 58,676,953 |
| 1959 | 29,962,600 | 50,000,000 | 79,962,600 | 5,688,138 | 62,812,000 |
| 1960 | 32,682,000 | 46,735,000 | 79,417,000 | 5,685,176 | [4] 72,287,800 |
| 1961 | 37,890,000 | 51,528,000 | 89,418,000 | 5,660,349 | 79,039,800 |
| 1962 | [5] 42,223,851 | [6] 67,976,000 | 110,199,851 | 5,841,761 | 88,457,100 |
| 1963 | [7] 48,017,054 | [8] 72,775,500 | 120,792,554 | 6,450,559 | 94,093,000 |
| 1964 | [9] 50,754,829 | 61,697,000 | 112,451,829 | [10] 6,873,000 | [10] 96,000,000 |
| 1965 (estimated) | 55,624,000 | 55,406,000 | 111,030,000 | 7,093,000 | 102,000,000 |

[1] Net appropriations after reductions pursuant to law.
[2] Excludes $131,600 transferred to Office of Solicitor, and includes $600,000 included in "Second Supplemental Appropriation Act, 1955" for the Jones Point Bridge.
[3] Includes $390,094 appropriated plus $134,436 transferred from other agencies for pay increases; and excludes $23,000 transferred to Office of Territories.
[4] New basis for counting visitors was implemented at beginning of 1960. Comparable figure on old basis of counting is 65,827,000.
[5] Includes $1,025,000 supplemental appropriations and excludes $28,000 transferred to Bureau of Outdoor Recreation and $9,649 to General Services Administration.
[6] Includes $3,500,000 supplemental appropriations.
[7] Includes $1,629,750 supplemental appropriations, and excludes $1,101,096 transferred to Bureau of Outdoor Recreation, and $600 to General Services Administration.
[8] Includes $5,000,000 supplemental appropriations, and excludes $2,000,000 withdrawn for Bureau of Indian Affairs.
[9] Excludes $72,671 transferred to General Services Administration for operation and maintenance of Franklin Delano Roosevelt Library.
[10] Estimated.

*General fund receipts deposited to the credit of the U.S. Treasury during the fiscal year 1963 and estimated for the fiscal years 1964 and 1965*

| | Actual 1963 | Estimated | |
|---|---|---|---|
| | | 1964 | 1965 |
| Automobile, admission, guide, and elevator fees | $5,470,564 | $5,800,000 | $6,000,000 |
| Business concessions | 658,954 | 702,500 | 722,500 |
| Rents and royalties | 122,372 | 188,300 | 188,300 |
| Permits, privileges, and licenses | 28,077 | 30,000 | 30,000 |
| Sale of power and other utilities | 62,389 | 65,000 | 65,000 |
| Sale of Government property and products | 69,467 | 71,200 | 71,200 |
| Sale of services | 5,011 | 4,500 | 4,500 |
| Other fees and forfeitures | 1,732 | 2,500 | 2,500 |
| Reimbursements | 30,586 | 8,000 | 8,000 |
| Gifts and contributions | 1,407 | 1,000 | 1,000 |
| Total | 6,450,559 | 6,873,000 | 7,093,000 |

*Comparative summary of the 1964 appropriations with the 1965 estimates*

| Appropriation and activity | Net appropriations, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|
| Management and protection: | | | |
| Management of park and other areas | [1] $22,117,783 | $24,598,300 | +$2,480,517 |
| Forestry and fire control | 1,423,000 | 1,514,700 | +91,700 |
| Soil and moisture conservation | 203,900 | 205,000 | +1,100 |
| Park and recreation progarms | 2,826,300 | 2,877,000 | +50,700 |
| Concessions management | 505,600 | 517,000 | +11,400 |
| Subtotal | 27,076,583 | 29,712,000 | +2,635,417 |
| Maintenance and rehabilitation of physical facilities: | | | |
| Roads and trails | 8,784,000 | 9,500,000 | +716,000 |
| Buildings, utilities, and other facilities | [2] 12,757,496 | 14,000,000 | +1,242,504 |
| Subtotal | 21,541,496 | 23,500,000 | +1,958,504 |
| Construction: | | | |
| Buildings, utilities, and other facilities | 26,532,000 | 924,926,000 | −1,606,000 |
| Acquisition of— | | | |
| Lands | 5,300,000 | | −5,300,000 |
| Water rights | 365,000 | 480,000 | + 115,000 |
| Roads and trails | 500,000 | | −500,000 |
| Subtotal | 32,697,000 | 25,406,000 | −7,291,000 |
| Construction (liquidation of contract authorization): | | | |
| Parkways | 11,000,000 | 12,000,000 | +1,000,000 |
| Roads and trails | 18,000,000 | 18,000,000 | |
| Subtotal | 29,000,000 | 30,000,000 | +1,000,000 |
| General adminstrative expenses: | | | |
| Departmental expenses | 1,304,350 | 1,457,000 | +152,650 |
| Regional office expenses | 832,400 | 955,000 | +122,600 |
| Subtotal | 2,136,750 | 2,412,000 | +275,250 |
| Grand total | 112,451,829 | 111,030,000 | −1,421,829 |

[1] Excludes $47,417 transferred to General Services Administration for operation of Franklin D. Roosevelt Library.
[2] Excludes $25,254 transferred to General Services Administration for maintenance of Franklin D. Roosevelt Library.

## National Park Service Budget

Chairman Hayden. Mr. Hartzog, the committee welcomes you here today, presenting the National Park Service budget for your first time as Director of the National Park Service. Perhaps before you begin you would like to tell the committee a little bit about yourself. We realize that you have been with the Park Service and that you appeared before us last year as Mr. Wirth's assistant. After your self-introduction, I am sure that the committee would like to hear whatever statement you have with regard to your 1965 budget. You may either read something which you have prepared or you may file a written statement and highlight it.

Mr. Hartzog. Thank you very much. It is a great honor to have the opportunity to appear before this committee today. I was born and raised in South Carolina. My home is now in St. Louis, Mo. Mrs. Hartzog is a Bostonian. I came to work in the National Park Service in 1946 as an attorney. The office was then located in Chicago. After a year's service at Lake Texoma Recreation Area, which the Service administered at that time in cooperation with the Corps of Engineers, I returned to Washington as an attorney and saw service as Assistant Chief of the Concessions Management Division of the Service.

I transferred to Rocky Mountain National Park in 1955 as Assistant Superintendent and later to Great Smoky Mountains National Park in the same capacity. I next spent more than 3 years as Superintendent of the Jefferson National Expansion Memorial in St. Louis. I left the Park Service in 1962 to become executive director of a private organization in St. Louis concerned with encouraging the development of downtown St. Louis. I returned to the National Park Service in February of last year as Associate Director, assuming the directorship in January of this year when Mr. Wirth retired.

I have with me at the table this morning our new Assistant Directors and our Associate Director. With your permission, Mr. Chairman, I would like to show you some cards as I go through my general statement.

Chairman HAYDEN. Very well.

Mr. HARTZOG. Thank you, sir.

### NATIONAL PARK SERVICE REORGANIZATION

Mr. Chairman, the National Park Service has recently undergone a reorganization, as the committee may know. Primarily, what we have tried to accomplish is to group the functions of the National Park Service, each of which is headed by an Assistant Director. Administration is headed by Clarence P. Montgomery; Operations is headed by Howard Baker, formerly our midwest regional director in Omaha; Design and Construction is headed by J. E. N. Jensen; Specialized Services in charge of Jackson E. Price; Resources Studies is headed by Ben Thompson; and cooperative activities is headed by Ted Swem. Also, I am privileged to have with me Associate Director Clark Stratton.

### FIELD MANAGEMENT

Our field management is divided into six regions: The National Capital region, headed by T. Sutton Jett, who is also here today; the northeast region with headquarters in Philadelphia, Pa.; the southeast region with headquarters in Richmond, Va.; the midwest region with headquarters in Omaha, Nebr.; the southwest region with headquarters in Santa Fe, N. Mex.; and the western region with headquarters in San Francisco, Calif.

Also, we have three field design and construction offices responsible for the construction programs of the more than 200 areas of the national park system.

### MISSION OF THE PARK SERVICE

The Congress has assigned to the National Park Service what in my opinion is the single most satisfying, rewarding, and fulfilling mission assigned any bureau. This mission is to manage park resources for the continuing benefit and enjoyment of all of the people. The National Park Service, therefore, is a people-serving agency. It is also a resource-managing agency. The scope of the national park system has been outlined in six landmark pieces of legislation:

### PUBLIC LAND POLICY

The act of 1872, establishing Yellowstone National Park—the first of its kind in the world—in which the Congress laid down a new public

land policy, namely: That portions of the public lands were to be dedicated and set apart in perpetuity, not for material gain or riches, but rather for the benefit and enjoyment of the people as "* * * a public park or pleasuring-ground.* * *"

The original national park concept was concerned with natural features and scenic resources. But in the years after 1900, vandalism and indiscriminate looting of prehistoric Indian sites in the Southwest resulted in the passage of the Antiquities Act of 1906. This act extended the public land policy to provide authority for the President by proclamation to set aside as national monuments, "* * * historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States * * *."

### Establishment and Responsibility of Park Service

In 1916, the Congress established the National Park Service and assigned to it responsibility for administration of all of the national parks and most of the national monuments theretofore established.

Further consolidation of the administration of the Nation's parks was accomplished pursuant to law in 1933 when numerous military parks, memorials, and national monuments were transferred from other Government agencies to the Department of the Interior.

### Historic Sites Act of 1935

The Historic Sites Act of 1935 established a national policy of preserving historic sites and buildings. It also directed the Secretary to carry out wide ranging programs in the field of history and placed with the Secretary responsibility for national leadership in the field of historic preservation.

### Park, Parkway, and Recreation Area Study Act of 1936

The Park, Parkway, and Recreation Area Study Act of 1936 authorized the Secretary to cooperate with other Federal agencies, and with the States and their political subdivisions, in carrying out a comprehensive study of the public park, parkway, and recreation area resources of the United States.

### Bureau of Outdoor Recreation

With the establishment of the Bureau of Outdoor Recreation in the Department of the Interior in 1962, the nationwide recreation planning functions were transferred to the new Bureau. The National Park Service, however, continues to make available its professional skills and experience in such activities as land use planning, design and construction, interpretation and management to Federal and State agencies, and we are working very closely with the new Bureau in furthering the mission assigned to it by the Congress.

### New Concept in Park System Development

The act of 1961 authorizing Cape Cod National Seashore marked a new concept in the development of the national park system, namely: the use of appropriated funds at the outset to purchase a natural

area in its entirety for public enjoyment as a park. Prior to this enactment, areas, for the most part, were established either by setting aside portions of the public lands or from lands donated to the Federal Government initially by the States and private parties.

### Visitations to Park System Areas

Of course, the visitation to the areas of the national park system has continued to rise and has placed great pressure upon the facilities in these areas. This is a chart which shows that in 1963 more than 94 million visits were made to the national park system. By 1980 these visits will more than double.

It may be of interest to you and the committee to note the dotted line which is a projection. This heavy black line is what has actually been happening during the period of Mission 66 in the past 8 years.

Traditionally, the Service has followed a policy of protection allowing plant and animal life to freely adapt. But as the pressures and influence of a constantly increased visitation descend upon us, coupled with an urban society in many instances in close proximity to the national parks, protection alone is not enough.

It was pointed out by Dr. A. Starker Leopold and his committee in a report which states in effect that it is going to be necessary in the years ahead for the National Park Service to take some definite steps to preserve these priceless heritages set aside by the Congress in the areas of the national park system.

Specifically, Dr. Leopold and his board recommend that the biotic associations within each park be maintained and where necessary re-created as nearly as possible in the condition which prevailed when the area was first visited.

### Report of National Academy of Sciences

The National Academy of Sciences in its report has underscored the need for additional natural history research as a basis upon which to improve our overall management. These reports influenced our decision to coordinate all our resource studies in connection with our reorganization under the supervision of a single assistant director.

The Secretary's Advisory Board on Wildlife Management, independent researchers, conservationists, and others have pointed out the factor of human use and the physical development therefor and the resultant impact of both upon the areas of the national park system.

### Coordination on Planning Land Use

To approach this complex task of land use planning, we have begun working very closely with the U.S. Forest Service on those lands administered by the National Park Service and those administered by the U.S. Forest Service. On March 5 of this year, we and the U.S. Forest Service are going to have a joint meeting of our regional directors and regional foresters to discuss this. We expect also to undertake a pilot project of planning land use in the southern portion of Mount Rainier and the adjacent national forests. We hope from these pilot projects to develop a system which will provide for better land planning and likewise increase the protection of the essential values inside the national park system.

SURVEY OF HISTORIC SITES

Additionally, at Glen Canyon and Whiskeytown National Recreation Areas we are developing joint visitor center and interpretative facilities with the Bureau of Reclamation. These will present a unified story covering the development of natural resources and outdoor recreational opportunities and they will save the taxpayers money.

To encourage other agencies, States, local governments, and private individuals to recognize and preserve important sites, representative of our Nation's historic heritage, the Service has undertaken a national survey of historic sites. Such sites are identified and, upon agreement of the owner, are marked with the national landmark plaque. The Federal Government, in this program, can officially recognize and encourage support for the preservation of these important historic sites, although it does not provide the funds necessary for their preservation.

Our parks make a priceless contribution to the innerstrength of our Nation. The American people are now far removed from the old frontiers when everyone lived close to the earth on ranches, farms, and in small communities. In those days, not more than a generation or two removed, there was unlimited space and the outdoors was always within easy reach.

But today when most people have cut their roots and moved off the land, they find less and less opportunity to enjoy what was once taken for granted. With a swiftly burgeoning population, an industrial and urban expansion without parallel, life has changed and areas that once provided recreational opportunity are now gone.

Spiritually, our people need reminders of their past. Without them they lose the sense of being a part of old America. Without them, they are without roots and without ties to our great national heritage. Without roots, we cannot understand the past, we cannot enjoy the present, and we cannot build for the future.

Mr. Chairman, we appreciate very much the support which you and this committee have given to the programs of the National Park Service over the years. We have additional information in our general statement and with your permission we will file it for the record. It is a great privilege to be here. We will be pleased to try to answer your questions. Thank you, sir.

(The statement referred to follows:)

STATEMENT OF DIRECTOR GEORGE B. HARTZOG, JR., OF THE NATIONAL PARK SERVICE

Mr. Chairman and members of the committee, it is with pleasure and a deep sense of gratitude that I am privileged to appear before you for the first time as Director of the National Park Service. I am keenly aware of the important part this committee has played over the years in advancing the Service's programs and in helping us attain our objectives, particularly during the 8-year period since Mission 66 was launched. I feel that it is with a sense of mutual interest in the programs of the Service and the part they play, and will play, in the general welfare of both present and future generations that we meet with you today to discuss our plans and fund requirements for the coming year.

Recently the National Park Service has been reorganized to reflect our several functions and to insure their closer coordination and supervision. The functions of the Service fall into six broad categories. Each of these functions is headed by an Assistant Director who is with me here today. They are Mr. Clarence P. Montgomery, Acting Assistant Director for Administration; Mr. Lawrence F.

Cook, Acting Assistant Director for Operations; Mr. Jackson E. Price, Assistant Director for Specialized Services; Mr. J. E. N. Jensen, Assistant Director for Design and Construction; Mr. Ben H. Thompson, Assistant Director for Resource Studies; and Mr. Theodor R. Swem, Assistant Director for Cooperative Activities. I am pleased to have here with me also my colleague, Mr. A. Clark Stratton, who serves as Associate Director.

Our field management is divided into six regions. The National Capital region, headed by Mr. T. Sutton Jett, who is also here today; the northeast region with headquarters in Philadelphia, Pa.; the southeast region with headquarters in Richmond, Va.; the midwest region with headquarters in Omaha, Nebr.; the southwest region with headquarters in Santa Fe, N. Mex., and the western region with headquarters in San Francisco, Calif.

Also, we have three field design and construction offices responsible for the construction programs of the more than 200 areas of the national park system.

The Congress has assigned to the National Park Service what in my opinion is the single most satisfying, rewarding, and fulfilling mission assigned any bureau.

This mission is to manage park resources for the continuing benefit and enjoyment of all of the people.

The National Park Service, therefore, is a people-serving agency.

It is also a resource-managing agency.

The scope of the national park system has been outlined in six landmark pieces of legislation:

The act of 1872, establishing Yellowstone National Park—the first of its kind in the world—in which the Congress laid down a new public land policy; namely, that portions of the public lands were to be dedicated and set apart in perpetuity, not for material gain or riches, but rather for the benefit and enjoyment of the people as "* * * a public park or pleasuring-ground * * *."

The original national park concept was concerned with natural features and scenic resources. But in the years after 1900, vandalism and indiscriminate looting of prehistoric Indian sites in the Southwest resulted in the passage of the Antiquities Act of 1906. This act extended the public land policy to provide authority for the President by proclamation to set aside as national monuments, "* * * historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States * * *."

In 1916, the Congress established the National Park Service and assigned to it responsibility for administration of all of the national parks and most of the national monuments theretofore established.

Further consolidation of the administration of the Nation's parks was accomplished pursuant to law in 1933 when numerous military parks, memorials, and national monuments were transferred from other Government agencies to the Department of the Interior.

The Historic Sites Act of 1935 established a national policy of preserving historic sites and buildings. It also directed the Secretary to carry out wide-ranging programs in the field of history and placed with the Secretary responsibility for national leadership in the field of historic preservation.

The Park, Parkway, and Recreation Area Study Act of 1936, authorized the Secretary to cooperate with other Federal agencies, and with the States and their political subdivisions, in carrying out a comprehensive study of the public park, parkway, and recreation area resources of the United States.

With the establishment of the Bureau of Outdoor Recreation in the Department of the Interior in 1962, the nationwide recreation planning functions were transferred to the new bureau. The National Park Service, however, continues to make available its professional skills and experience in such activities as land-use planning, design, and construction, interpretation and management to Federal and State agencies, and we are working very closely with the new Bureau in furthering the mission assigned to it by the Congress.

The act of 1961 authorizing Cape Cod National Seashore marked a new concept in the development of the national park system; namely, the use of appropriated funds at the outset to purchase a natural area in its entirety for public enjoyment as a park. Prior to this enactment, areas, for the most part, were established either by setting aside portions of the public lands or from lands donated to the Federal Government initially by the States and private parties.

As will be observed, the national park system has not been a static institution. It has continued to evolve for almost a century. With each new congressional enactment it has taken on a new vitality and meaning. Even so, our original mission remains unchanged; namely, to manage park resources for the continuing benefit and enjoyment of all the people.

We stand at the threshhold of a new era. An era in which leisure is rapidly moving from the fringe to the core of life.

Our population continues to grow. For the most part, this growing population is concentrated in urban areas and this trend is continuing.

These factors continue to place pressure upon us to provide healthful outdoor recreational opportunities for all the people. For example, visitation to the areas of the national park system amounted to more than 94 million in 1963. We predict that this visitation will double by 1980.

Traditionally the Service has followed a policy of protection, allowing plant and animal life an opportunity to freely adapt to changing natural conditions. But the pressures and influences of a constantly increased visitation, coupled with an expanding urban society—in many instances in close proximity to the national parks—interfere with this freedom and make protection alone insufficient for proper management.

This problem was studied last year by the Secretary's Advisory Board on Wildlife Management and placed in clear focus in its brilliant report, a copy of which has been given to the committee. In brief, the Board recommended:

"That the biotic associations within each park be maintained, and where necessary re-created, as nearly as possible in the condition that prevailed when the areas were first visited by the white man. A national park should represent a vignette of primitive America."

The National Academy of Sciences, in its report, has underscored the need for additional natural history research as a basis upon which to improve our overall management. These reports influenced our decision to coordinate all resources studies within the Service under the supervision of an Assistant Director.

The Secretary's Advisory Board on Wildlife Management, independent researchers, conservationists, and many others have called attention to the factor of human use and the physical developments therefor, and the resultant impact of both upon the preservation of park values.

To approach the complex task of providing for increased park use and reducing its impact upon park resources on the broadest possible front, we need to undertake programs of comprehensive land planning with other agencies which will provide for the optimum man-land ratio and result in the highest and best use of the land.

On March 5 of this year, we and the Forest Service will hold a joint meeting of our regional directors and regional foresters. It shall be our purpose to discuss areas where such joint planning possibilities exist. We expect to undertake joint planning for public use with the Forest Service on at least one pilot area this year; probably, the southern portion of Mount Rainier National Park and the adjacent national forest. We are hopeful that this pilot project will lay a successful foundation upon which this effort may be extended in the future.

Additionally, at Glen Canyon and at Whiskeytown National Recreation Areas we are developing joint visitor center and interpretive facilities with the Bureau of Reclamation. These joint facilities will present a unified story covering development of our natural resources and of outdoor recreational opportunities. And, they will save the taxpayer's money.

To encourage other agencies, States, local governments, and private parties to recognize and preserve important sites, representative of our Nation's historic heritage, the Service has undertaken a national survey of historic sites. Such sites are identified and, upon agreement of the owner, are marked with a national landmark plaque. The Federal Government, in this program, can officially recognize and encourage support for the preservation of these important historic sites, although it does not provide the funds necessary for the preservation.

Our parks make a priceless contribution to the inner strength of our Nation. The American people are now far removed from the old frontiers when everyone lived close to the earth on farms, ranches, and in small communities. In those days not more than a generation or two removed, there was unlimited space and the out of doors was always within easy reach. But today when most people have cut their roots and moved off the land, they find less and less opportunity to enjoy what once was taken for granted. With a swiftly burgeoning population, an industrial, and urban expansion without parallel, life has changed and areas that once provided recreational opportunity are gone.

Spiritually, our people need reminders of their past. Without them, they lose the sense of being part of the old America. Without them, they are without roots or ties to our great national heritage. Without roots we cannot understand the past, enjoy the present, or build for the future.

In the 1965 budget proposals before you, we have given energetic attention to the objectives outlined by President Johnson a few weeks ago with regard to improvement in manpower utilization, effecting economies, improving service and increasing productivity. We are wholeheartedly in accord with this endeavor and are actively engaged in programs aimed at reducing costs and increasing efficiency of operations.

Since the commencement of Mission 66 it has been our practice to report to the committee annually on donations of cash, lands, and other objects received by the Service. Last year, Mr. Wirth reported that cash donations totaling $5,519,210 and donations of lands and other objects (exclusive of White House furnishings) valued at approximately $6,800,000 had been received during the period from July 1, 1955, the beginning of the fiscal year in which Mission 66 was announced, through December 31, 1962. I am pleased to report that during the 1963 calendar year additional cash donations totaling $648,771 and additional donations of lands and other objects (exclusive of White House furnishings) valued at approximately $175,000 have been received. This brings the total of such donations for the 8½-year period to more than $13 million. We anticipate that further contributions will be received as time goes on. We will continue our efforts to stimulate assistance from outside sources to help carry out our programs wherever possible. We should like to point out in this connection that the 1965 budget provides for a new position of trust fund officer, the incumbent of which will have primary responsibility for encouraging and promoting such patriotic participation.

I feel that this report on donations would not be complete if I did not state that the Service's achievements in obtaining contributions are attributable almost entirely to the unceasing efforts of former Director Wirth. This, of course, is only one of the innumerable achievements to Mr. Wirth's credit. During his long career he has given unstintingly of himself. He has walked—and at times, he has run with great strides—in the forefront of those who are working to preserve the great scenic and historic heritage of our land. The imprint of his life will always be upon this Service and upon the parks which he loves. His example of dedicated and distinguished service at one and the same time inspires me and, likewise, humbles me when I ponder the enormous task which has just been passed to me.

### 1965 ESTIMATES

The estimates under consideration total $111,030,000. This is a net decrease of $1,421,829 under the amount available for 1964. The budget provides a total of $55,624,000 for the Service's various operating programs and $55,406,000 for its capital programs. The amounts represent an increase of $4,869,171 over the amount presently available for 1964 for operating programs and a decrease of $6,291,000 for capital programs.

### OPERATING PROGRAMS

The appropriation items which finance the operating programs, the amounts requested for 1965, and the increases provided for in the estimates are as follows:

| Appropriation item | 1965 request | Increase |
|---|---|---|
| Management and protection | $29,712,000 | $2,635,417 |
| Maintenance and rehabilitation of physical facilities | 23,500,000 | 1,958,504 |
| General administrative expenses | 2,412,000 | 275,250 |
| Total | 55,624,000 | 4,869,171 |

The increase requested in the "Management and protection" and "Maintenance and rehabilitation of physical facilities" appropriation items, totaling $4,593,921, provides $3,606,321 for the benefit of park operating programs, and $987,600 to meet increased costs incident to classified employee salary increases pursuant to Public Law 87–793, wage rate increases and employee compensation fund payments.

Park visitation will reach an estimated 102 million in 1965 as compared to 94.1 million in 1963 and an estimate of 96 million in 1964. Increases in visitor use generate increases in fund requirements in all facets of park operations and maintenance. The budget recognizes this change in workload and provides appropriation increases for the purpose. It also recognizes, as it has for the past several

years, the fund requirements for operating and maintaining the new facilities that are being completed in the parks under the Mission 66 construction program. Of the total increases under the "Management and protection" and "maintenance and rehabilitation of physical facilities" appropriation items for the benefit of park operations, more than $2.7 million is for placing the Service in a better position to handle the increase in visitor workload in the parks, including extension of the visitor season in some of them, and for operating and maintaining new buildings, grounds, utility systems, roads, trails, parkways, and other Mission 66 facilities.

The budget includes increases for the park programs totaling $84,000 for operating and maintaining two new areas for which funds are not now provided: Hamilton Grange National Memorial, New York; and Frederick Douglass Home, District of Columbia. The amounts requested represent minimum first-year operation and maintenance requirements.

Also in the category of increases for the benefit of park operating programs, $97,000 is requested for 10 additional park police for the National Capital parks areas; $68,000 for continuing and expanding the program commenced in 1963 for converting existing radio systems in the parks to narrow-band frequencies; $400,000 for paying service-connection charges incident to obtaining commercial electric power and telephone service in some of the isolated park areas; $82,000 for for more adequate fire protection service in the parks; and $150,000 for natural science and wildlife management studies.

Provision of the additional U.S. Park Police postions will bring the park police force to the level proposed in the 1964 budget. This request is a further step toward attainment of the staffing level that previously has been determined by competent authority to be necessary.

The program for converting existing radio systems in the parks to narrow-band frequencies has been undertaken to meet requirements of a regulatory agency. The program, undertaken in fiscal 1963, is to be completed by November 1, 1966.

In order to obtain commercial electric power and telephone service in some of the isolated park areas, payments must be made to the utility companies to cover all or portions of the cost of extending their electric and telephone lines and other facilities to the parks. These paynents are made in lump sums when the services are commenced. Negotiations are underway for otaining commercial power and telephone service on this basis in fiscal year 1965 for which the amount of $400,000 requested will be required to meet service connection charges.

The placing of new Mission 66 facilities into operation, the enlargement of public use areas, the increased visitor use of the parks, and the addition of new areas to the system, all bring about added fire protection service requirements. The increase requested for this purpose will provide mainly for employment of additional temporary fire control aids in the parks and for the purchase of required supplies, materials, and equipment.

The natural science and wildlife management studies must be undertaken at the earliest possible date if the Service is to have needed facts and information upon which to base policy, program, and management decisions having to do with the preservation, development, and use of the parks. My earlier remarks in which I referred to the report of the Secretary's Advisory Board on Wildlife Management and the report made by the National Academy of Sciences dealt with this situation.

The pay increases for classified positions, as well as the wage rate increases, for which additional funds are needed are already in effect and these costs can be met only through an appropriation increase or through program retrenchments.

The increase of $275,250 for "General administrative expenses" provides for strengthening the administrative staffs in the Washington and regional offices to meet the increase in administrative workload that has taken place since the commencement of Mission 66 and to intensify management analysis and statistical functions in the interest of full utilization of manpower and fund resources; and for increased salary costs as authorized by Public Law 87–793.

### CAPITAL PROGRAMS

Our capital program estimates include $25,406,000 for "Construction" and $30 million for "Construction (liquidation of contract authorization)."

The "Construction" estimate provides for the following:

| | |
|---|---|
| Buildings, utilities and other facilities | $24,926,000 |
| Acquisition of water rights [1] | 480,000 |
| Total | $25,406,000 |

[1] The 1965 fiscal year fund requirement for the acquisition of lands is not included in this estimate. It is proposed that it be included in a 1965 supplemental estimate of the Bureau of Outdoor Recreation after the pending land and water conservation fund legislation is enacted.

The "Construction (liquidation of contract authorization)" estimate provides expenditure authority for liquidation of obligations incurred and to be incurred under the contract authorization for parkways and roads and trails construction.

The contract authorization programs for the parkways and roads and trails construction programs for 1965 are in the amounts of $12,400,000 and $21,600,000 respectively, a total of $34 million.

The estimate for buildings, utilities, and other facilities includes $3,870,000 for the first stage of a supplemental water supply and rehabilitation of the sewer system at Grand Canyon National Park, Ariz.; $1,826,900 for various developments, including a day-use building at Mount Rainier National Park, Wash.; $799,500 for for continuing work at Independence National Historical Park, Pa.; $1,291,300 for various developments at Glacier Bay and Sitka National Monuments in Alaska; and $1,031,000 for various developments at Yellowstone National Park, Wyo.

Some of the major projects included in the 1965 construction program for roads and trails and parkways are: $2,405,000 for eliminating a 6-mile gap in the Blue Ridge Parkway near Asheville, N.C.; $1,385,000 for starting construction on a 5½-mile section of road from the eastern terminus of the Foothills Parkway in Tennessee, at Pigeon River, to connect with proposed Interstate Route 40 near Brown Island, at Pigeon River, where the State is constructing an interchange for the Foothills Parkway; and $1,304,700 for continuing construction on the Natchez Trace Parkway in Mississippi, from U.S. Highway 61 at Port Gibson, to Mississippi Highway 552, a distance of about 6 miles.

Mr. Chairman, in closing, I should like to thank the committee for the consideration it has given to our budget requests through the years. We renew our pledge to strive for obtaining the maximum benefit from every dollar that is made available to the National Park Service.

### Landmark Program

Senator Bible. Mr. Chairman, might I ask him what that picture was that said the landmark program? What was that?

Mr. Hartzog. That was the barracks, I believe, at Carlisle.

Senator Bible. I just wanted to know what it was.

Mr. Hartzog. That is the Carlisle barracks in Pennsylvania, of which the Indian school has been selected for a historic landmark.

Senator Bible. Thank you very much. Thank you, Mr. Chairman.

Senator Mundt. What are the criteria, Mr. Hartzog? I understand it is private property but it is to identify the property with some historic background. You must have some criteria.

Mr. Hartzog. Indeed we do. We have a printed brochure on it: If we may, Mr. Thompson will pass it over to you. We might say also, Senator, that the "Soldier and Brave" book which you have before you is a theme study which represents the basic research from which these historic sites are then selected.

In other words, we take the major themes in American history and with the funds that you have provided our staff researches that theme and identifies the sites in this country that are representative in that theme and these, then, become not only national historic sites that were included in the national park system but landmark sites and others identified with State and local administration.

Chairman Hayden. There will be entered into the record the justification statement for the estimate of requirements for "Man-

agement and protection," for which $29,712,000 is asked in fiscal year 1965, an increase of $2,588,000 over the amount appropriated in fiscal year 1964.

(The justification referred to follows:)

MANAGEMENT AND PROTECTION

HIGHLIGHT STATEMENT

*Broad purpose and long-range objective of program*

The programs financed under this appropriation are those concerned with the management, protection, and interpretation of the areas administered by the National Park Service, including soil and moisture conservation, land use and water resources studies, and the management and audit of concessions operations; and those aimed at fulfilling the responsibilities placed upon the Service by provisions of the Park, Parkway, and Recreation Area Study Act, approved June 23, 1936 (49 Stat. 1894), the Colorado River Storage Project Act, approved April 11, 1956 (70 Stat. 105), and the Historic Sites Act, approved August 21, 1935 (49 Stat. 666).

The broad purpose and long-range objectives of the programs concerned with park operations are as stated in the act of August 25, 1916, establishing the Service, which provides that "the Service thus established shall promote and regulate the use of the Federal areas known as national parks, monuments, and reservations hereinafter specified by such means and measures as conform to the fundamental purpose of the said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." An objective of Mission 66 is to place the Service in a position to handle 108 million visitors in carrying out this mandate by 1966; the last year of the 10-year period.

The Park, Parkway, and Recreation Area Study Act of 1936 authorizes and directs the Secretary of the Interior "to cause the National Park Service to make a comprehensive study, other than on lands under the jurisdiction of the Department of Agriculture, of the public park, parkway, and recreation area programs of the United States, and of the several States and political subdivisions thereof, and of the lands throughout the United States which are or may be chiefly valuable as such areas."

The responsibilities as set forth in this act, originally delegated in full to the National Park Service, are now delegated in part to the Bureau of Outdoor Recreation and in part to the Service. The Service is now responsible for two broad program functions—National park and recreation area planning and recreation planning service to other Federal agencies.

Under the national park and recreation area planning program studies are conducted to determine the significance, suitability, and feasibility of areas proposed for inclusion in the National Park System. The program also includes the assembly and dissemination of material and data required for consideration prior to the authorization of a park area; development of information to assure that park boundaries are adequate to permit the accomplishment of the purpose for which a park was established; and the formulation of a long-range national park system plan, including the identification of areas of national significance for park, parkway, and recreation area status.

Under the planning service program, the Service participates in recreation site planning for the Bureau of Reclamation, Corps of Engineers, Bureau of Indian Affairs, Fish and Wildlife Service, Federal Power Commission, and other Federal agencies as requested; assists those Federal agencies in negotiating agreements with State and local agencies for administration of recreation lands and facilities provided with Federal funds; makes periodic inspections of operations covered by such agreements aimed at insuring compliance with terms of the agreements; and provides assistance to States and other political subdivisions in park and recreation planning, development, operations, and management matters.

The Colorado River Storage Project Act of 1956 provides under section 8 that "in connection with the development of the Colorado River storage project and of the participating projects, the Secretary is authorized and directed to investigate, plan, construct, operate, and maintain (1) public recreational facilities on lands withdrawn or acquired for the development of said project, or of said participating projects, to conserve the scenery, the natural, historic, and archeologic

objects, and the wildlife on said lands, and to provide for public use and enjoyment of the same and of the water areas created by these projects by such means as are consistent with the primary purposes of said projects: * * *." The National Park Service has been designated as the agency responsible for carrying out the obligation of the Department under this statutory provision. The Service is currently conducting archeological investigations and salvage and recreation site planning programs in connection with the Colorado River storage project in fulfillment of this responsibility. It has also commenced management, protection, interpretation and maintenance operations in the Glen Canyon area, Arizona and Utah, and the Flaming Gorge area, Utah and Wyoming; areas that have been determined to be of national significance. Funds are being provided in Bureau of Reclamation appropriations for transfer to the National Park Service for constructing recreational facilities in the upper Colorado River areas as authorized by the above-cited statute.

The Historic Sites Act of 1936 provides that "* * * it is a national policy to preserve for public use historic sites, buildings, and objects of national significance for the inspiration and benefit of the people of the United States * * *." The act further provides that the Secretary of the Interior through the National Park Service, for the purpose of effectuating this policy, shall:

"(*a*) Secure, collate, and preserve drawings, plans, photographs, and other data of historic and archeologic sites, buildings, and objects.

"(*b*) Make a survey of historic and archeologic sites, buildings, and objects for the purpose of determining which possess exceptional value as commemorating or illustrating the history of the United States.

"(*c*) Make necessary investigations and researches in the United States relating to particular sites, buildings, or objects to obtain true and accurate historical and archeological facts and information concerning the same."

In fulfilling the foregoing responsibilities, the Service has in progress an archeological investigations and salvage program, a historic sites survey, and a historic American buildings survey. The archeological investigations and salvage program is aimed at recovering irreplaceable historic and archeological resources from water control projects in the major river basins of the United States prior to flooding or other destruction. The historic American buildings survey comprises a national plan for making and preserving records of existing monuments of the builder's art in the United States and its possessions. Its first aim is the conservation of our national cultural resources in historic architecture and its secondary aim is service to the public by making available and preserving exact records of this cultural background of American history. The historic sites survey has as its objective a systematic nationwide inventory, investigation, and recording of significant historic and archeological sites; the formulation of clearly defined standards for determining which historic and archeological sites possess national importance within the scope of the Historic Sites Act; the preparation of a classified list of recorded historic and archeological sites, indicating which possess national importance and which do not; definition of the nature and extent of Federal responsibilities for the preservation and use of sites of national importance; and the formulation of policies and practices to carry out those responsibilities.

*Accomplishments during the past year*

Continued progress was made in fiscal 1963 in the prosecution of all the programs discussed in the foregoing. Some of the specific accomplishments of 1963 were:

1. The Service was host to 94,093,000 visitors to the park areas administered in 1963.

2. Operations were commenced at Bent's Old Fort (Colorado), Fort Smith (Arkansas), and Fort Davis (Texas) National Historic Sites; Lincoln Boyhood National Memorial (Indiana), and Whiskeytown Reservoir Area (California).

3. About 17,484,000 copies of free informational publications for use of park visitors were printed for distribution.

4. Visitor fee revenues deposited into the U.S. Treasury as miscellaneous receipts totaled $5,470,564.

5. Six new areas were authorized for addition to the national park system during the year: Fort Saint Marks (Florida); Sagamore Hill (New York), and Theodore Roosevelt Birthplace (New York) National Historic Sites; Padre Island (Texas) and Point Reyes (California) National Seashores; and Frederick Douglass Home, District of Columbia.

6. Field investigations were made of 48 areas throughout the country for possible national park, national historic site, or national recreation area status; com-

prehensive planning studies were made of 16 areas to determine their national significance and their suitability and feasibility for inclusion in the system.

7. Boundary adjustments were authorized affecting Bandelier (New Mexico), Capulin Mountain (New Mexico), Craters of the Moon (Idaho), and Natural Bridges (Utah) National Monuments; Big Hole (Montana) and Petersburg (Virginia) National Battlefields; Vicksburg National Military Park (Mississippi); and the Virgin Islands National Park. Also name changes were authorized to identify certain areas with a more appropriate park category, resulting in the following revised area identifications: Big Hole (Montana) and Petersburg (Virginia) National Battlefields; Edison National Historic Site (New Jersey); and Harpers Ferry National Historical Park (West Virginia).

8. Seventeen comprehensive geological and ground water investigations and 12 continuing measurements of streamflow and ground water level were accomplished in or for the parks.

9. Archeological surveys were accomplished in 31 project areas and major salvage in 42 project areas in 30 States. Small archeological investigations were made in 29 Service areas. Approximately 80 percent of the work was accomplished by cooperative agreements and contracts with 31 State and local institutions. In turn, the cooperating agencies expended approximately $274,000 of their own funds in cash or equivalent services on these projects.

10. Progress on the survey of historic American buildings continued with 334 sheets of measured drawings and 1,599 photographs, covering approximately 576 structures being completed and deposited in the Library of Congress.

11. The historic sites survey carried forward studies of 5 themes, or periods of American history, 5 special studies, and over 400 inventories. Special studies were completed in response to congressional requests; and a number of requests for investigations from other sources were received.

12. Six major concession contracts were executed, which included construction programs totaling approximately $2,850,000. At the end of the fiscal year, there were approximately 81 major concession contracts and 113 miscellaneous ones in effect. Capital investments by concessioners under existing contracts in new and improved facilities totaled approximately $3,500,000. The franchise fees of six concessioners were reconsidered, of which one was increased, three were unchanged and two are pending.

13. During the year audits were completed and reports rendered on 39 concessioners covering an aggregate of 143 years' operations. This represents an increase over the 1962 fiscal year of six audits. Periods covered in audits of individual concessioner's operations varied from 1 to 9 years.

*Objectives and program for budget year*

The objectives for the budget year are to achieve maximum progress toward the Mission 66 goal in all programs financed under this appropriation and to keep Mission 66 as nearly on schedule as possible.

The increases requested totaling $2,635,417 provide $2,186,817 for the benefit of park operating programs, and $448,600 to meet increased costs incident to classified employee salary increases pursuant to Public Law 87-793.

The budget contemplates that park visitation will reach 102 million in 1965 as compared to 94,093,000 in 1963 and an estimate of 96 million in 1964. It also recognizes, as it has for the past several years, the increased fund requirement for operating the many new and reconstructed facilities that are being completed in the parks under the Mission 66 construction program. Of the total increases under this appropriation item for the benefit of park operations, more than $1,500,000 is for placing the Service in a better position to handle the increase in visitor workload in the parks, including extension of the visitor season in some of them, and for operating new visitor centers, campgrounds, amphitheaters, and other new Mission 66 facilities.

The budget includes increases in the park programs for operating and maintaining two new areas for which funds are not now provided; namely, Hamilton Grange National Memorial, New York; and Frederick Douglass Home, District of Columbia. Also, in the category of increases for the benefit of park operating programs is provision for 10 additional U.S. Park Police positions; for continuing and expanding the program commenced in fiscal 1963 for converting existing radio systems in the parks to narrow-band frequencies; for paying service-connection charges incident to obtaining commercial electric and telephone services in some of the isolated parks; and for more adequate fire protection service in the parks.

An increase of $150,000 is also included to initiate a coordinated program of natural science and wildlife management studies to provide needed facts and

information upon which to base policy program, and management decisions having to do with the preservation, development, and use of the parks.

*Management and protection*

| | |
|---|---|
| Appropriation, 1963 | $25,525,000 |
| Supplemental appropriation, 1963 | 960,000 |
| Total appropriation, 1963 | 26,485,000 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration | −600 |
| Transferred to "Salaries and expenses," Bureau of Outdoor Recreation, Interior | −1,101,096 |
| Total available, 1963 | 25,383,304 |
| Appropriation, 1964 | 27,124,000 |
| Transferred to "Operating expenses, Public Buildings Services," General Services Administration | −47,417 |
| Total available, 1964 | 27,076,583 |

SUMMARY OF INCREASES, 1965

| | |
|---|---|
| To provide for increased pay costs for fiscal year 1964 positions | 448,600 |
| New park areas for which funds are not not provided | 46,000 |
| New park areas activated since beginning of Mission 66 now partially financed | 401,000 |
| To operate newly constructed facilities and to meet requirements generated by increased visitor use and general park program expansion in pre-Mission 66 areas | 1,015,817 |
| Conversion of park radio systems to narrow-band frequencies | 68,000 |
| Commercial power and telephone service connection charges | 200,000 |
| Natural science and wildlife management studies | 150,000 |
| 10 additional U.S. Park Police, salaries and expenses | 97,000 |
| Production of additional park informational publications | 75,000 |
| To provide for more adequate fire protection service | 82,000 |
| Employees compensation fund payments | 52,000 |
| Net increase, 1965 | 2,635,417 |
| Budget estimate, 1965 | 29,712,000 |

*Analysis by activity*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 | | |
|---|---|---|---|---|
| | | Total appropriation | Transfers | Amount available |
| 1. Management of park and other areas | $20,175,722 | $22,165,200 | [1] $47,417 | $22,117,783 |
| 2. Forestry and fire control | 1,559,352 | 1,423,000 | | 1,423,000 |
| 3. Soil and moisture conservation | 195,438 | 203,900 | | 203,900 |
| 4. Park and recreation programs | 2,811,969 | 2,826,300 | | 2,826,300 |
| 5. Concessions management | 482,554 | 505,600 | | 505,600 |
| Unobligated balance lapsing | 158,269 | | | |
| Total | 25,383,304 | 27,124,000 | 47,417 | 27,076,583 |

[1] Represents transfer to General Services Administration.

*Analysis by activity*—Continued

| Activity | Fiscal year 1963, amount available | Fiscal year 1964, amount available | Fiscal year 1965, estimate | Increase 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. Management of park and other areas | $20,175,722 | $22,117,783 | $24,598,300 | $2,480,517 | $375,700 | $2,104,817 |
| 2. Forestry and fire control | 1,559,352 | 1,423,000 | 1,514,700 | 91,700 | 9,700 | 82,000 |
| 3. Soil and moisture conservation | 195,438 | 203,900 | 205,000 | 1,100 | 1,100 | ---------- |
| 4. Park and recreation programs | 2,811,969 | 2,826,300 | 2,877,000 | 50,700 | 50,700 | ---------- |
| 5. Concessions management | 482,554 | 505,600 | 517,000 | 11,400 | 11,400 | ---------- |
| Unobligated balance lapsing | 158,269 | ---------- | ---------- | ---------- | ---------- | ---------- |
| Total | 25,383,304 | 27,076,583 | 29,712,000 | 2,635,417 | 448,600 | 2,186,817 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*1. Management of park and other areas—Analysis by subactivities*

| Subactivity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (*a*) National parks, monuments, etc. | $17,278,169 | $18,787,083 | $20,924,300 | $2,237,217 | $353,400 | $1,783,817 |
| (*b*) National Capital parks | 2,446,210 | 2,833,000 | 3,045,000 | 212,000 | 18,000 | 194,000 |
| (*c*) Informational publications | 440,929 | 441,700 | 521,000 | 79,300 | 4,300 | 75,000 |
| (*d*) Employees compensation fund payments | 10,414 | 56,000 | 108,000 | 52,000 | ---------- | 52,000 |
| Total | 20,175,722 | 22,117,783 | 24,598,300 | 2,480,517 | 375,700 | 2,104,817 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

(*a*) *National parks, monuments, etc.*

The estimate of $20,924,300 is an increase of $2,137,217 over 1964, and includes $353,400 for increased pay costs.

The programs financed under this subactivity are those concerned with management, protection, and interpretation of the areas administered by the National Park Service other than those comprising the National Capital region. The estimate contemplates that 207 park areas with a total of about 26 million acres in Government ownership will be administered during the 1965 fiscal year. The estimate also contemplates that visitation of those areas will exceed 102 million in calendar 1965 as compared to 94.1 million in 1963, the last completed calendar year, and an estimate of 96 million for 1964. Fulfillment of the Service's responsibility incident to this visitor use requires adequate staffs of uniformed personnel—rangers, naturalists, historians, guides, etc.—as well as adequate numbers of management and administrative employees.

While much progress has been made in overcoming staffing and other program component deficiencies that obtained at the commencement of Mission 66 and in meeting the heavy increase in workload that has taken place; i.e., the increase in visitor use, the addition of new areas to the system, and the provision of new visitor facilities in the areas the operation of which requires additional staffing and general expense funds, adequate staffing and funding levels have not been reached. It is essential that the full amount requested in the estimate be provided if minimum requirements for the management, protection, and interpretation of the park areas are to be met in the budget year.

The increases requested are for the following purposes:

| | |
|---|---|
| Increased pay costs | $353,400 |
| One new park area for which funds are not now provided | 33,000 |
| New park areas activated since beginning of Mission 66 now partially financed | 401,000 |
| To operate newly constructed facilities and to meet requirements generated by increased visitor use and general park program expansion in pre-Mission 66 areas | 931,817 |
| Conversion of park radio systems to narrow-band frequencies | 68,000 |
| Commercial power and telephone service connection charges | 200,000 |
| Natural science and wildlife management studies | 150,000 |
| Total | 2,137,217 |

*Need for increase.*—Fund requirements under this subactivity continue to increase from year to year. Principal factors bringing about the increased requirements are (1) constantly increasing visitor use of the parks; (2) completion and placing into operation of new Mission 66 facilities requiring additional management, protection, and interpretive personnel and supporting general expense funds; (3) establishment of new park areas; and (4) increases in the cost of doing business. All of the increases requested are for going programs, except $33,000 for one new park not yet activated and $150,000 for natural science and wildlife management studies. Justification for the increase under each of the major program categories is set forth below:

*New park area for which funds are not now provided, $33,000*

*Hamilton Grange National Memorial, N.Y.*—This area was authorized for establishment by Public Law 87–438, approved April 27, 1962. "The Grange," built in 1801, was the only house ever owned by Alexander Hamilton, but it no longer stands on its original site. It is to be moved again and set aside as a public national memorial to commemorate the historic role played by Alexander Hamilton in the establishment of this Nation. Land is being donated to the Federal Government on which to relocate "The Grange." The act authorized an appropriation of $460,000 to cover the costs of moving and restoring the house and developing the new site for visitor use. Funds for this purpose were provided in the 1964 fiscal year "Construction" appropriation.

The lands which are being donated will be in Federal ownership within a short time and it is expected that "The Grange" will be moved to its new location on the donated land by or shortly after the beginning of the 1965 fiscal year, at which time the Service's responsibility for management, protection, and interpretation will commence. The increase requested will provide for the following:

| | |
|---|---|
| Historian-curator, GS–9 | $7,030 |
| Park guide, GS–4 (2) | 8,444 |
| Guard, GS–3 (2) | 7,780 |
| Total salaries (5 positions) | 23,254 |
| Less estimated lapse | 1,150 |
| Net salaries | 22,104 |
| General expenses, including personnel benefits, uniform allowances, supplies, equipment, etc | 10,896 |
| Grand total | 33,000 |

*New park areas activated since beginning of Mission 66 now partially financed, $401,000*

Since the beginning of Mission 66 in 1957, 24 new areas have been, or soon will be, activated for which management, protection, and interpretation funds totaling $1,275,700 are provided under this subactivity in the 1964 appropriation. The initial amounts and any subsequent increases provided have been requested and allocated to meet minimum needs in activating the new areas and their increased requirements to date. Requirements for new areas increase from year to years as progress is made in getting the operations underway and in providing services and facilities as visitor use increases. This estimate provides a program increase of $401,000 for 23 of the newly activated areas to meet operating requirements during the 1965 fiscal year. The areas activated during the Mission 66 period or soon to be activated and pertinent fund and staffing data with respect to each follow:

| Area | 1964 appropriation | | 1965 estimate | | Increases requested | |
|---|---|---|---|---|---|---|
| | Fund allocation | Permanent positions | Fund allocation | Permanent positions | Funds | Permanent positions |
| Arkansas Post, Ark | $18,700 | 2 | $25,300 | 3 | $6,600 | 1 |
| Bent's Old Fort, Colo | 30,000 | 3 | 32,000 | 3 | 2,000 | |
| Booker T. Washington, Va | 24,900 | 2 | 27,100 | 2 | 2,200 | |
| Cape Cod, Mass | 155,000 | 10 | 211,300 | 14 | 56,300 | 4 |
| City of Refuge, Hawaii | 37,100 | 3 | 53,500 | 4 | 16,400 | 1 |
| Flaming Gorge, Utah and Wyo | 85,700 | 8 | 129,900 | 11 | 44,200 | 3 |
| Fort Clapsop, Oreg | 32,900 | 3 | 36,100 | 3 | 3,200 | |
| Fort Davis, Tex | 46,300 | 4 | 52,800 | 5 | 6,500 | 1 |
| Fort Smith, Ark | 42,900 | 6 | 48,600 | 6 | 5,700 | |
| General Grant, N.Y | 21,700 | 3 | 22,400 | 3 | 700 | |
| Glen Canyon, Ariz. and Utah | 184,200 | 18 | 203,400 | 19 | 19,200 | 1 |
| Grand Portage, Minn | 45,800 | 5 | 48,900 | 5 | 3,100 | |
| Horseshoe Bend, Ala | 37,600 | 4 | 45,600 | 5 | 8,000 | 1 |
| Lincoln Boyhood, Ind | 28,200 | 3 | 41,100 | 4 | 12,900 | 1 |
| Minute Man, Mass | 70,300 | 7 | 93,600 | 9 | 23,300 | 2 |
| Padre Island, Tex | 31,000 | 4 | 73,700 | 8 | 42,700 | 4 |
| Pea Ridge, Ark | 41,700 | 5 | 45,200 | 5 | 3,500 | |
| Point Reyes, Calif | 28,000 | 5 | 104,300 | 8 | 76,300 | 3 |
| Russell Cave, Ala | 24,700 | 3 | 25,800 | 3 | 1,100 | |
| Sagamore Hill, N.Y | 30,400 | 6 | 55,900 | 6 | 25,500 | |
| Theodore Roosevelt Birthplace, N.Y | 13,100 | 3 | 20,100 | 3 | 7,000 | |
| Virgin Islands, V.I | 163,800 | 17 | 174,800 | 18 | 11,000 | 1 |
| Whiskeytown, Calif | 52,000 | 5 | 100,400 | 7 | 48,400 | 2 |
| Wilson's Creek Battlefield, Mo | 29,700 | 3 | 30,200 | 3 | 500 | |
| Total | 1,275,700 | 132 | 1,702,000 | 157 | 426,300 | 25 |
| Less pay increase costs for fiscal year 1964 positions | | | | | 25,300 | |
| Program increase requested | | | | | 401,000 | |

The increases requested, as indicated in the foregoing, are needed to bring visitor services and protection staffing more nearly in line with that of other comparable areas and to meet the workload anticipated to obtain in the 1965 fiscal year, including the operation of new facilities that will be completed under the Mission 66 construction program. The increases in permanent positions shown in the above tabulation will be met through reductions in permanent positions in pre-Mission 66 areas where the work currently being performed by incumbents of such positions will be accomplished by contract or by temporary employees.

*To operate newly constructed facilities and to meet requirements generated by increased visitor use and general park program expansion in pre-Mission 66 areas, $931,817*

Since the beginning of Mission 66, the two major purposes for which increases have been requested under this subactivity for park areas existing at the commencement of Mission 66 have been (1) for operating newly constructed facilities, and (2) for requirements generated by increased visitor use and general park program expansion. While these items have been presented separately in prior year estimates, they have always been considered as companion ones. With the passing of time, it has become progressively difficult to break out the total requirement into the two categories. This is due principally to the fact that amounts appropriated for the purposes have in many instances been less than the amounts requested, thereby making it necessary to operate new facilities with amounts provided to meet the increased visitor workload and vice versa. In so doing, continuity of the requests from year to year has been disrupted. For this reason the two items are combined in this estimate.

Increases have been provided for these purposes each year since the beginning of Mission 66. However, the Mission 66 objective of providing adequate staffing and supporting general expense funds for management, protection, and interpretation of the park areas has not geen realized and the requirement increases from year to year as visitor use of the parks increases, as new facilities are placed into operation and, with respect to management requirements, as the overall park operating and development programs expand in the progress of Mission 66.

By the beginning of the 1965 fiscal year, it is estimated that there will have been completed and placed into operation in all service areas during the 8-year period since the commencement of Mission 66, along with a wide variety of other facilities, 1,750 miles of new or reconstructed roads, 260 of which serve new or reconstructed campgrounds; 80 new visitor centers; 14,600 new campsites; 178 new picnic areas with a capacity of 4,200 sites; and 60 new amphitheaters and campfire circles with seating capacity of 15,000. The construction appropriation estimates contemplate that programs for completing and placing into operation additional units in all of these categories will continue at a reasonably high level in 1965.

The completion and placing into operation of new units in each of these categories bring requirements for additional funds and staffing under this appropriation activity. New visitor centers require additional uniformed interpretive personnel. The new campgrounds and campfire circles require additional protective and interpretive personnel (rangers, naturalists, historians, etc.), plus supporting general expense funds, including uniform allowances. New miles of roads and parkways, and, in some instances, reconstructed and reconditioned roads require additional ranger personnel for patrol functions, plus supporting general expense funds, including such expensive items as the acquisition, operation, maintenance, and replacement of motor vehicles.

The steady increase in visitation to the pre-Mission 66 parks, which will exceed 100 million in 1965, intensifies existing workload requirements. This is for comparison with the workload generated by annual visitation of 60.3 million at the beginning of Mission 66. Only through the provision of adequate uniformed personnel and supporting program assistance can minimum visitor services and park protection requirements be met, to say nothing of improving the service to the public and providing more adequate protection of park values.

Aside from the increased visitor use of the parks during the previously recognized travel season, use patterns are changing and extending to the degree that in some heretofore seasonal parks, public use is steadily approaching a year-round basis. New public use areas and improvements of roads tend to spread public use within the parks. Water use and back-country use are steadily increasing. Campground use increased approximately 86 percent from 1956 to 1963. In 1956, camper days totaled 3,628,600 while in 1963 they totaled 6,741,000. All of these factors bring about progressively increasing fund requirements for management, protection, and interpretive staffing and general expenses.

The total increase requested under this heading is for application to requirements in 131 parks. The increase does not provide for any new permanent positions. It does provide, however, for about 64 man-years of temporary employment, plus supporting general expense funds for items such as uniform allowances and acquisition, operation, maintenance, and repair of motor vehicles. Additionally, it provides for contract work, communications, supplies, materials, and equipment required in the operation of the new facilities.

*Conversion of park radio systems to narrow-band frequencies, $68,000*

On January 14, 1959, the Executive Office of the President, Office of Civil Defense Mobilization, issued a directive requiring the narrow banding of all Federal radio systems. Pursuant to that directive, the Interdepartment Radio Advisory Committee issued a memorandum to the National Park Service on March 5, 1959, requiring conversion of the radio systems in the parks to narrow-band frequencies by November 1, 1963. In view of the number and diversity of radio installations throughout the Service, the various types of equipment now in use in the parks, and the various technical problems expected to be encountered, it appeared most unlikely that all of the conversions throughout the Service could be completed by the date set. Accordingly, the Service appealed for an extension of time and was given a new deadline date of November 1, 1966.

It is estimated that the total cost of the conversion to narrow-band frequencies will exceed $400,000. The sum of $67,500 was provided in each of the 1963 and 1964 appropriations to commence the program. The increase of $68,000 requested under this item brings the total request for the purpose to $135,500 in 1965 and represents fund requirements for conversions proposed to be accomplished in that year.

A significant increase in the use of the very high frequencies (VHF) for military, aeronautical, and "space" services emphasizes the need for the Government to use the available spectrum as efficiently as is practical. Use of narrow-band or "split" channels is a major factor in obtaining more efficient use and will provide increased availability of existing transmission and receiving radio chan-

nels. The National Park Service must convert its systems or the total schedule will not be met. This could cause serious interference with radio assignments to other agencies.

*Commercial power and telephone service connection charges, $200,000*

The Service arranges for obtaining electric power in the parks from commercial sources unless it is determined not to be in the interest of the Government to do so. Mission 66 plans call for the commencement of commercial electric power service in 22 areas in the budget year. Negotiations with the power companies to extend service to isolated park areas must be on the basis of paying a service connection charge to cover all or a part of the extension costs or, when possible to do so, the paying of increased rates over a specified period until the power company's extension investment is recovered. On the basis of experience to date, more satisfactory and more economical arrangements can be made on the basis of paying a lump-sum charge at the time the service is commenced. In many instances it is not possible to negotiate on any other basis.

To obtain telephone service in some of the isolated areas or to isolated sections of some areas, it is necessary to construct lines at Government expense from points where the telephone service is required to connect with telephone company lines or to arrange with the telephone companies for extension of their lines. Such arrangements with a telephone company, as is the case with respect to extension of electric lines by the power companies, must likewise be on the basis of paying a service connection charge or paying a higher monthly rate for telephone service over an extended period of time. In most cases, it has been determined to be in the interest of the Government to negotiate with the telephone companies on the basis of making a lump-sum payment at the time the service is connected.

Such lump-sum payments for both electric and telephone connections are proper for financing under the same appropriation items that finance the electric and telephone service. Negotiations underway for services to be commenced in 1965 carry a connection charge fund requirement of $450,000 of which $250,000 will be chargeable to this appropriation activity and $200,000 to activity 2 of the maintenance and rehabilitation appropriation item. A small increase of $50,000 was provided for the purpose in the 1964 management and protection appropriation but no specific provision for it was made in the maintenance and rehabilitation item. The increase requested for the purpose must be made available if the program for providing adequate electric power and telephone services for the parks is to go forward as planned.

*Natural science and wildlife management studies, $150,000*

It is of extreme urgency that the Service undertake a carefully planned and coordinated program of natural science and wildlife management studies at the earliest possible date. Some such work has been done from year to year in the past with funds that could be made available from area allotments and with the small amount that has been available specifically for the purposes, but such work has only scratched the surface and has not been accomplished as a part of a coordinated plan to insure timely production of adequate data on a servicewide priority of need basis. The increase requested under this heading is to provide for commencement of such a planned program.

It is essential that these studies be undertaken in 1965 to provide seriously needed data that is now lacking. Without this needed data, sound and timely management, policy, planning, and programing decisions required to protect and maintain the integrity of the park and to protect the interests of present and future generations in them cannot be assured.

The need for management oriented studies of wildlife, vegetation, and geologic conditions is stressed in a report dated March 4, 1963, by the Secretary's Advisory Board, on wildlife management entitled "Wildlife Management in the National Parks" and by the report of the National Academy of Sciences which was rendered by the Academy on August 1, 1963. It is urged that both of these reports be given careful review in considering this budget request.

The following statement is quoted from the National Academy of Sciences report:

"Unless drastic steps are taken to restore the deteriorated environments within this generation, several if not all of the national parks will be degraded to a state totally different from that for which they are preserved and for which they were to be enjoyed."

This is the sobering conclusion reached by a National Academy of Sciences committee appointed, at the request of Secretary Udall, to study and to advise

the National Park Service regarding its needs for scientific information as a basis for effective park management, use, and preservation.

The report asserts further that—

The national parks are among the most valuable heritages of this country.

The Government demonstrated particular wisdom in setting them apart for the people.

The role of national parks in the lives of our citizens is dramatically enlarging.

Each national park should be regarded as a system of interrelated plants, animals and habitat.

Each park should be dealth with individually on the basis of objectives defined in the light of the purposes and phenomena (biological, geological, archeological) which instigated its establishment.

The Service should conserve the national parks with due consideration for enjoyment by their owners.

Knowledge about the parks and their problems is prerequisite to the discharge of this responsibility.

Past research by the Service, the accomplishment of which should be a matter of pride to the Service, has nevertheless been seriously inadequate to the discharge of these responsibilities.

The report cites specific examples of where degradation or deterioration has occurred because scientific data was not developed and was not brought to bear upon problems of management, development, public use, or preservation.

The committee made 20 recommendations to the Service regarding the nature, scope, and methods of organizing and conducting a program to meet the problems of today and the future.

Park natural resources include scenery, geologic features and phenomena, forest and plant cover, wildlife and all other elements of the natural environments of the areas. These are real resources for they are the raw materials under the Service's management from which visitor benefit and enjoyment are obtained. These resources cannot be exploited consumptively if they are to yield a maximum of visitor benefit and enjoyment. They are to be used but not used up.

The results of forest fires are obvious at once. But other adverse influences such as erosion, trampling and pulverization of forest understory and flower-carpeted meadows, and the ravages of tree pests and blight, do not reveal their presence until irreversible harm has been done. The situation explodes with sudden violence and disastrous effects, like the failure of mechanical devices because of metal fatigue.

The wise course, and the economical one, is to nip in the bud, to apply remedial measures while the problem is small, before the damage becomes irreversible.

To do so the Service must take steps to obtain comprehensive knowledge about the resources it is protecting, and of the dangers it must protect against. The task is by no means simple, because the interrelations, interdependence, and interactions among natural environments, and the forces at work within them are exceedingly complex, frequently obscure, and incompletely understood. As in medicine, adequate knowledge is required for the diagnosis, and scientific competence is essential in applying the remedy.

The scientific program has an additional bonus value, providing data and concepts necessary for public information and interpretation.

The following cases illustrate the importance of competent scientific service and knowledge in the solution of practical park problems:

(1) About a decade ago an abnormal number of giant sequoia trees in Sequoia, Kings Canyon, and Yosemite National Parks, began to lean, and to fall. Where visitors were endangered, some of the trees had to be felled. Limited studies revealed that the root systems were injured by heavy visitor traffic and by being sealed off by blacktop. The cause was very complex, involving soil compaction, availability of air, water, and plant food, and root fungus. This small study is already pointing the way for protection of the sequoias through better development plans and better public use practices. But much more is needed immediately. The initial study also brought to light facts indicating that the species as a whole may be endangered through a widespread failure of the species to reproduce itself during the last 75 years. The full details by all odds must be obtained It is in the public interest that a program of scientific investigations be continued in the interest of preservation of these trees.

(2) Special emphasis must be placed on wildlife studies urgently needed by management. Overpopulation of ungulate wildlife species in several national parks has already resulted in severe damage to range environments and forest resources. Wildlife management control programs are continually required for

conserving the integrity of park wildlife and associated vegetation. To be effective and economical, these must be based upon scientific study and recommendations; guesswork is no longer good enough; elk, buffalo, and pronghorn antelope herds of Yellowstone National Park have so damaged the range as to have drastically altered the availability and quantity of food for themselves and for other species. Consequently, the whitetail deer and beaver have either been completely eliminated or severely reduced from these ranges, and the bighorn is threatened. Such ecological changes pyramid, so that soil erosion, reduction or elimination of plant species, reduction of suitable food and cover for smaller wildlife species, disruption of normal life patterns, establishment of conditions of starvation, pestilence, or disease follow. The solution is not found by only counting elk, but by conducting complete studies of the total environment, and basing corrective management plans thereon. Similar problems exist, requiring similar lines of attack in Zion, Bryce, Rocky Mountain, Glacier, Sequoia and other western national parks.

(3) In several parks, introduced nonnative wildlife species are in direct competition with native species for food, cover, and water. Competition for food and water is particularly severe in the desert areas. Studies need to be conducted to give guidance to control and management programs directed toward restoration of native habitats and native populations of wildlife species. Burros, goats, pigs, wild boars, and mongooses are presently in serious conflict with native wildlife in 15 areas administered by this Service, including Great Smoky Mountains, Hawaii Volcanoes, and Virgin Islands National Parks, and Death Valley National Monument.

(4) Both grizzly and black bear management and associated studies continue to be a critical need. Black bears were responsible for more than 60 personal injuries, 740 incidents and $10,800 in property damage during 1962. A single tort claim against the Federal Government, due to injuries caused by a grizzly bear, resulted in an award of approximately $130,000 to the plaintiff.

A servicewide management plan, that will insure maximum visitor enjoyment of the natural park scene with a minimum infringement on natural activities of bears, requires an understanding of the habitat requirements of bears, their way of life, and their reaction to man. The objective is to effect a maximum compatibility of man and bear within the natural situations that occur in the 38 parks involved. Studies toward this end should be continued and extended.

(5) Mosquitoes prevent full enjoyment of several parks, particularly in the eastern seashore recreational areas. The usual type of control programs which involve manipulations of water impoundments, use of insecticides, and biological deterrents, and other means can have extremely adverse effects upon other animals and plants, including the spectacular bird populations and fish life that the areas were established to perpetuate. Therefore, controls must be applied, first as carefully tested small-scale pilot projects, and the results subjected to a full analysis by professional ecologists.

The program makes provisions for:

1. Basic planning, in its initial stages, for the administration of, and for the technical aspects of the overall program. This has been undertaken by the existing professional staff, which will continue to consult with scientists of other bureaus and universities, in planning, setting up, and directing the programs.

2. Field investigations and consultative service: A small nucleus of scientists is proposed for immediate assignment to those national parks having the most severe deterioration and presently in greatest need of scientific data and service for remedial action. These men will provide immediate on-site advice and service on management problems while improving the present status of knowledge, and developing programs to remedy existing conditions of severe deterioration in the environment. The latter functions are essential to the development of management programs for each park, as recommended by the Academy Committee and the Committee on Wildlife Management in National Parks. The program contemplates temporary and w.a.e. employment of qualified specialists where appropriate to accomplish studies for which the assignment of permanent employees would not be economically feasible or necessary.

3. Project studies: Contracts and cooperative arrangements with State universities and Government research agencies for project studies offer an outstanding advantage. The cooperating institutions make substantial contributions of their own manpower and funds because of their own established interests and commitments in these fields. In this way, the Service usually receives much more than a dollar in return for every dollar spent.

It is proposed, through contracts with universities in the various States, and by cooperative arrangements with the Fish and Wildlife Service and the U.S. Geological Survey, to undertake specific projects directed toward the solution of recognized severe conservation problems in several park areas, such as Glacier, Hawaii, Rocky Mountain, Sequoia and Kings Canyon, Wind Cave, Yellowstone, and Yosemite National Parks, and Channel Islands, Badlands, Organ Pipe Cactus, and Saguaro National Monuments. Additional support and continuity will be provided for certain projects now in progress, such as elk environmental and improvement studies in Grand Teton, Glacier, Yellowstone, and Rocky Mountain National Parks, grizzly and black bear investigations, and studies and experimentation of techniques relative to the preservation and management of the bighorn, protection of moose range on Isle Royale National Park, and the "Balds" of Great Smoky Mountains National Park.

The total increase requested is as follows:

| | |
|---|---|
| Personnel compensation: | |
| Permanent positions (5) (4.7 man-years) | $55,000 |
| Temporary and/or w.a.e. employment (3 man-years) | 35,000 |
| Subtotal (7.7 man-years) | 90,000 |
| Contract studies | 36,000 |
| General expenses, including personnel benefits, printing, travel, etc | 24,000 |
| Total | 150,000 |

*Plan of work.*—The program contemplates a continuing effort to manage, protect, and interpret the parks and facilities administered to accommodate an estimated 102 million visitors in 1965 and, at the same time, preserve park values.

Of the increase requested, about 16 percent is for increased pay costs; about 44 percent has been applied to the operation of newly constructed facilities and to cover requirements generated by increased visitor use and general park program expansion in pre-Mission 66 areas; about 21 percent is for the operation of 1 new park area for which funds are not now provided and for additional operating requirements in 23 park areas that have been activated since the beginning of Mission 66; about 12 percent to continue the program for converting park radio systems to narrow-band frequencies and to provide for service connection charges incident to obtaining commercial electric power in various parks; and the balance, about 7 percent is for the initiation of a coordinated program of natural science and wildlife management studies.

(*b*) *National Capital parks*

The estimate of $3,045,000 is an increase of $212,000 over 1964. The increase includes (1) $18,000 for increased pay costs; (2) $13,000 for operation of a newly authorized area (Frederick Douglass Home); (3) $97,000 for 10 additional U.S. Park Police positions, salaries, and expenses; and (4) $84,000 for additional staffing and general expense funds for management, protective, and interpretive functions.

*Need for increase.*—The increases are needed to (1) manage, protect, and interpret the newly authorized Frederick Douglass Home in the District of Columbia; (2) strengthen the park police force as a further step toward achievement of the required staffing level as discussed in previous estimates; and (3) provide other necessary management, protective, and interpretive staffing to meet the increased workload generated by increased visitor use and overall program expansion.

The following statement reflects increases in the volume of individuals using park facilities in the National Capital region and/or comprising vehicular and pedestrian traffic handled by the U.S. Park Police for certain calendar years from 1937 to 1963:

| | 1937 | 1959 | 1961 | 1962 | 1963 |
|---|---|---|---|---|---|
| Out-of-town visitors | 3,500,000 | 11,000,000 | 14,960,000 | 16,270,000 | 18,550,000 |
| Active and inactive recreation participants | 15,000,000 | 24,300,000 | 26,000,000 | 29,000,000 | 33,000,000 |
| Business motorists and pedestrians | 30,000,000 | 105,400,000 | 108,000,000 | 124,200,000 | 136,000,000 |
| Total | 48,500,000 | 140,700,000 | 148,960,000 | 169,470,000 | 187,550,000 |

This increase in visitation and in all types of park use, together with expanded facilities and increasing crime rate, makes it essential that the management, interpretative, and protective functions be strengthened. Justification for each major category of increase requested follows:

*Frederick Douglass Home, District of Columbia, $13,000*

This area was authorized to be designated and preserved as a part of the park system of the National Capital by Public Law 87–633, approved September 5, 1962. The act provides that the area so designated shall not exceed 14 acres, and that when the land, the home, and certain objects therein of historical significance have been donated to the United States, the Secretary of the Interior may designate it as a part of the park system by publication of a notice in the Federal Register. The act also authorizes the appropriation of $25,000 for repairing and refurnishing the home. Funds for this purpose were provided in the 1964 fiscal year construction appropriation.

It is anticipated that the area will be in Federal ownership prior to the beginning of the 1965 fiscal year, at which time the Service will be responsible for its management, protection, and interpretation. The increase requested herein for this purpose will provide for the following:

| | |
|---|---|
| Historian, GS–7 | $5,800 |
| Temporary employment, 1 man-year | 4,700 |
| General expenses, including personnel benefits, supplies, materials, etc. | 2,500 |
| Total | 13,000 |

*Ten Additional U.S. Park Police, salaries and expenses, $97,000*

The 1963 fiscal year estimate requested an increase of 62 additional park police as a step toward providing a Park Police force adequate to meet the protection needs of the park system in the Washington metropolitan area in the face of increasing crime rate and increasing visitor use. Funds were appropriated in 1963 for 31 additional officers. The 1964 estimate requested an increase of 31 police positions, the remainder of the full 1963 request, of which provision for 21 additional positions was made in the 1964 appropriation. This request for 10 additional officers is the balance of the number originally sought in 1963.

The 1963 fiscal year estimate justification stated that the Park Police force was the only one in the metropolitan area operating one-man cruisers. This type of operation has been necessary to give as much geographic coverage as possible with the limited manpower but it is not accepted as satisfactory policing in certain metropolitan areas. In programing the increases provided in 1963 and 1964, it was necessary to place emphasis on increasing the coverage in depth in certain localities as much as possible in view of the increasing crime rate. The frequency of patrol coverage by both foot and motor police has been increased but only in certain critical assignments has the use of two-man cruisers been inaugurated.

After excluding officers necessary for supervision; operating communications; performing equipment care, investigation, and training functions; handling crowds of approximately 400 special events per year and furnishing necessary escorts, only about one-half of the force is available for regular patrol duty. As it takes five men to man a patrol post, only 26 such posts can be manned regularly, of a total of 45 that should be manned, to protect life and property in approximately 40,000 acres of park land and regulate traffic over 215 miles of roads and parkways.

The 10 additional positions requested in this estimate, along with 10 that are being requested in the District of Coumbia budget, will bring the total force to 282 officers and 7 civilians. This number is 125 short of the 1965 staffing level recommended in the 1957 report on the survey of the Park Police operation.

*Additional staffing and general expense funds for management, protection, and interpretation functions, $84,000*

*Visitor services requirements, $55,000.*—The workload brought about by increased visitation and the construction of new public use facilities has created the need for additional protection and visitor services as follows:

1. Prince William Forest Park: Additional ranger services are needed to provide minimum protection in this park. Only one permanent and two seasonal rangers are provided at present for this park of 12,215 acres. The operation of new campground, picnic, and trailer camp facilities and increased activities during the hunting season, have brought about this requirement for additional ranger service. The estimate provides for 1 additional man-year of temporary ranger employment.

2. Catoctin Mountain Park: Additional ranger services, to be employed on the same basis as at Prince William Forest Park discussed above, are requested for this park. New public use facilities being constructed and increased use of the area make it essential that better protection be provided. Only one permanent ranger is available at this area. This leaves no protective personnel on active duty in the park when his tour of duty is over or when he is on leave. The estimate provides for 1.6 additional man-years of temporary ranger services.

3. Metropolitan area operations: Additional park guide services are needed to help handle the increased visitation workload at the various memorials. In the present overall operation of the memorials, there is a shortage of guide service at Custis-Lee Mansion and the combined forces at the Lincoln Museum and House Where Lincoln Died. The demands for interpretive services are such that an additional park guide is urgently needed at each location to provide essential services during required periods. There are presently eight guides and one guard assigned to Custis-Lee Mansion and six guides and three guards assigned to the Lincoln Museum and House Where Lincoln Died to provide interpretive and protective services to these areas on a three-shift, 7-day-a-week basis. The employment of additional guides on a temporary, part-time, or when-actually-employed basis to supplement the existing permanent personnel will make it possible to meet the minimum needs at the memorials. The estimate provides for 1 additional man-year of temporary guide services.

The services of a temporary clerk-typist are needed in the Branch of Information to assist in handling the increased demands for park information during the heavy-visitor-use season. The workload is such that there is more work than the one employee presently available can accomplish. This work involves answering numerous pieces of correspondence and telephone inquiries, clipping newspapers, typing press releases, etc. From January 1 to June 30, 1963, there were 180,000 pieces of literature distributed by the Information Branch; nearly 3,000 photographs were sold or lent for publication; approximately 7,000 written requests for information were processed. Many of these required written replies, either by a special letter, note, or designated form reply. By actual count, more than 100 incoming telephone calls have been answered in 1 day.

The services of a temporary park naturalist are needed to provide minimum interpretive services to visitors at Greenbelt Park which is being developed to include picnic areas and other facilities which will be opened for general public use by 1965. There is no interpretive staff presently available at this area.

*Additional guard service, $29,000.*—Additional part-time, when actually employed, and temporary guard services, supplemented where feasible and economical with automatic detection devices, are needed to provide necessary after work hours protection to the maintenance area in East Potomac Park and the warehouse buildings used to house historic objects when not on display. The East Potomac area is now used for the storage and issue of large quantities of supplies, materials, and equipment, and security should be provided during the night to protect the Government's investment. Also many items of historic value from the White House and other historic houses are stored in the warehouses which require protection. No guards have been provided for in appropriation increases for any of these facilities. With the proposed increase, needed protection can be provided at these two areas from 4 p.m. to 8 a.m. daily. The estimate provides for 3.1 additional man-years of temporary guard services.

*Plan of work.*—The program under this activity contemplates the management, interpretation, and protection of the Federal Park System of the Nation's Capital and the adjacent metropolitan areas in Maryland and Virginia. The System comprises over 39,000 acres representing capital investments of approximately $227 million, including improvements. The functions will be performed principally by employees of the National Capital region.

The increase will provide a more adequate police force and overall staffing to meet the needs of the management, interpretation, and protection programs.

(*c*) *Informational publications*

The estimate of $521,000 is an increase of $79,300 over 1964, which includes $4,300 for pay costs. The program increase will provide for (1) the production of increased quantities of free informational publications for distribution to park visitors and to meet a heavy demand for park informational material in the way of both personal and mail requests to the Washington and regional offices and (2) for production of additional sales publications dealing with the parks.

*Need for increase.*—Informational publications have played a vital part in the National Park Service's educational program from the earliest days of the agency.

The informational publications program over the years has been one of continued expansion. The reason, of course, is that printed information is essential to every operating area and the number of areas is increasing from year to year. With the continued and projected heavy increase in park visitation, the demand for additional publications and informational services cannot but follow the trend. Aside from this, the organizational unit handling this function finds itself closely allied with Department of Commerce activities promoting tourism from abroad and at home. This program, in fact, may well be one of the more influential programs allied with the Department of Commerce program for improving the dollar balance by way of tourism.

It is the Service's objective to ultimately be in a position to provide a park folder for every three park visitors. This long-held objective becomes less and less a reality from year to year. The ratio for 1964 will approximate 1 for every 7 visitors. The amount requested in this estimate for 1965 will still provide only 1 folder for about every 7 visitors because of the projected sharp rise in visitation.

The history and natural history handbook (sales publications) program is far behind demand. A genuine effort should be made to accelerate this program with a significant increase in output over that of recent years. Only 3 of these handbooks were produced in 1963; the backlog of handbook manuscripts has increased to nearly 30. This difference in the timelag between initial effort and the ultimate publishing step has too great a gap for continued confidence on the part of participating authors.

In keeping with the President's "See America Now" program, the National Park Service has this year opened a public reception room on the first floor of the Interior Building. The increase in demand at the Washington office level for informational material concerning the park areas is anticipated to be as much as 50 times greater than was experienced with the earlier informal arrangement in the Washington office for this same activity.

The publications program is by no means static. Booklets must be constantly revised because additional facilities and services are provided in parks through the Mission 66 program, boundaries are changed, and new knowledge of history, archeology, and natural history is obtained. Informational publications must be accurate and current if they are to serve the public.

*Plan of work.*—By and through this program it is planned to continue the production of general informational publications and their important adjuncts, the historical and natural history handbooks. Service personnel in the parks, the regional offices, and the Washington office, prepare and edit the publications and the Government Printing Office does the printing. The publications program for the current and budget years is as follows:

*1964 fiscal year*

| | Copies | Estimated cost |
|---|---|---|
| Free informational publications: | | |
| 27 booklets | 3,815,000 | $96,800 |
| 129 folders | 9,016,000 | 110,600 |
| 1 sheet | 30,000 | 700 |
| 5 general information publications | 95,000 | 2,900 |
| Subtotal (162) | 12,956,000 | 211,000 |
| Sales publications: | | |
| 5 historical handbooks (new) | | |
| 4 natural history handbooks (3 new, 1 revised) | | |
| Subtotal (9) | | 18,000 |
| Total | | 229,000 |

*1965 fiscal year*

| | Copies | Estimated cost |
|---|---|---|
| Free informational publications: | | |
| 30 booklets | 4,600,000 | $119,600 |
| 135 folders | 10,000,000 | 130,000 |
| 2 sheets | 50,000 | 1,200 |
| 8 general information publications | 150,000 | 4,500 |
| Subtotal (175) | 14,800,000 | 255,300 |
| Sales publications: | | |
| 6 historical handbooks | | |
| 6 natural history handbooks | | |
| Subtotal (12) | | 24,000 |
| Total | | 279,300 |

(*d*) *Employees' compensation fund payments*

The estimate of $108,000 is an increase of $52,000 over 1964. The estimate is the amount required for payment to the Bureau of Employees' Compensation, Department of Labor, as required by Public Law 86–767, approved September 13, 1960.

*2. Forestry and fire control*

| Subactivity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965, | Increase, 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (*a*) Forest management | $189,309 | $234,000 | $239,000 | $5,000 | $5,000 | |
| (*b*) Fire protection service | 864,430 | 984,000 | 1,069,600 | 85,600 | 3,600 | $82,000 |
| (*c*) Tree preservation | 100,517 | 105,000 | 106,100 | 1,100 | 1,100 | |
| (*d*) Forest fire suppression | 405,096 | 100,000 | 100,000 | | | |
| Total | 1,559,352 | 1,423,000 | 1,514,700 | 91,700 | 9,700 | 82,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

Vegetation, whether forest, brush, or grass, is an extremely important component in the internationally known national park scenery. It is the outstanding feature in many of the parks; in others, it is an essential element of the total park environment.

Forestry and fire protection activities financed from these funds protect this vegetation totaling over 11 million acres from fire, insects, disease, and other preventable damage and preserve it unspoiled for the inspiration and enjoyment of the people. Thousands of structures for visitors and administrative use must be protected from fire.

In addition, serious insect or disease epidemics must be appraised and controls undertaken where feasible to protect the park vegetation. Continuing emphasis is placed upon the prevention of man-caused or influenced damage to the irreplaceable forest resources of the parks. Protection organizations and facilities need to be strengthened and new and improved methods and equipment adopted to keep abreast of protection requirements resulting from increasing numbers of visitors, the changing patterns of visitor use and the Mission 66 development program in the parks. Funds to accomplish these objectives are requested in these estimates, as discussed below.

(*a*) *Forest management*

The estimate of $239,000 is an increase of $5,000 over 1964. This increase is for increased pay costs.

*Plan of work.*—Technical staff direction including investigation and planning and the development of procedures and standards for the protection of vegetation and control of forest and structural fires, is provided under this program by the Washington and regional offices. The forest management staffs in the divisions of ranger services in the Washington office and five of the regional offices give staff direction to activities involving protection of park features (lands, waters, and vegetative cover) and facilities from impairment by fire, human misuse,

unnatural erosional forces, encroachment by nonnative plants, epidemics of plant diseases, and insect infestations. They maintain close liaison with park operations and give technical assistance to park rangers and other fire protection personnel, foresters, tree preservation crews, white pine blister rust control, and forest pest control personnel. They cooperate directly with other Federal and State conservation agencies to privide efficiency and uniformity on joint operations, mutual aid during fires or other emergencies, interagency training, and development of new techniques and equipment.

They are responsible for staff direction and coordination of programs involving protection of approximately 26 million acres of Federal land, which contain about 11 million acres requiring intensive protection from fire. The preservation of these park forests, natural features, and wildlife is a major responsibility of the National Park Service. Facilities and structures of great value, irreplaceable historical buildings and objects and the millions of people who use the parks must also be protected from fire. The values at stake require the highest standards of performance at all levels.

Under provision of the Lea Act of April 26, 1946, (54 Stat. 168), and the Forest Pest Control Act of June 25, 1947 (61 Stat. 177), the Department of Agriculture transfers funds to the Department of the Interior and it in turn to the National Park Service for the control of white pine blister rust and epidemics of forest insects and tree diseases within the parks. The forest management staffs are responsible for coordination and direction of these programs. They also maintain liaison with departmental and U.S. Forest Service officials, formulate policies and procedures, issue instructions to the parks, approve projects and methods of control, and give on-the-ground assistance in fire detection and suppression operations.

(b) *Fire protection service*

The estimate of $1,069,600 is an increase of $85,600 over 1964, which includes $3,600 for increased pay costs and $82,000 for operating requirements generated by increased visitor use and general program expansion.

*Need for increase.*—Additional fire protection and control facilities and services are needed as new or enlarged public use areas are developed under the Mission 66 program. Increased visitor use and expansion of facilities result in changing use patterns and require revision and strengthening of protection programs. An increase of $82,000 is needed to provide additional aircraft services, specialized equipment, training, and for the expansion of existing forest and building fire control organizations. The increase will provide for 4 man-years of temporary services in the parks.

Some of the things that should be done and will be done insofar as possible with the increase requested include:

1. Selected modern techniques of fire control which are ideally suited for park operations will be adopted.

2. The steadily increasing visitor use of the parks has intensified the responsibility and workload of park staffs, especially in connection with forest and structural fire control program functions. This public use is not only increasing during normal periods, but use patterns are changing and expanding to the degree that in some parks such use is approaching, or has already reached, a year-round basis. There is an increasing tendency to spread visitor use within the parks, including back-country and water use areas. Irreplaceable historical buildings and their contents must be given the best protection possible. Fire prevention and presuppression activities must be modernized and broadened accordingly.

3. The typically rough terrain and roadless expanses of the parks present special problems in detecting fires and reaching them with suppression crews while they are still small. The increasing use of aircraft is paying off in this respect. Aircraft will be used to a greater extent to supplement fire lookout stations and fire patrols to locate fires. Presuppression costs in the use of aircraft and for training and equipping air attack personnel are high, but they pay off in the prevention or early suppression of many large and costly fires. Provision must be made in advance of forest fires for fire retardant chemicals to be dropped as a "holding action" before crews arrive or to knock down "hot spots" on large fires, and for helicopters to be used for scouting and to transport men and equipment to isolated areas.

4. To engage in an effective air operation, the Service must provide better ground-to-air communications; special equipment such as helipumpers, firehose trays, and retardant mixing equipment; and strategically located helispots.

5. The Service will cooperate to a greater extent with other agencies in planning for emergency operations through mutual training and assistance agreements

and continue participation in the development and testing of new fire equipment and methods.

6. In addition to regular fire suppression training, the Service will conduct specialized training in fire behavior, fire weather, air operations, large fire generalship, etc.; participate to a greater degree in interdepartmental and interbureau fire training programs; and assign more trainees to actual going fires.

*Plan of work.*—The fire protection services program provides services and facilities within the parks to carry out preventive measures on the ground and to organize and train Service employees and others to combat fires when they do occur by the most economical means and with the least possible damage to park features.

(c) *Tree preservation*

The estimate of $106,100 is an increase of $1,100 over 1964. This increase is for increased pay costs.

There are two mobile tree crews—an eastern crew which serves the northeast and southeast regions, and a western crew which serves the midwest, southwest, and western regions. The purpose of this program is to provide special care and protection for individual or significant trees such as those in historical and military park areas; and to those trees in developed public use portions of various areas. The cultural treatment afforded under this program is not applied to trees in the undeveloped segments of the scenic or scientific parks. The program is designed to establish and maintain the trees and associated vegetation in permanence where required.

Many individual trees or groups of trees in the parks have scenic, scientific, or historic significance. Examples of historically significant trees are those at Shiloh National Military Park and Vanderbilt Mansion National Historic Site. The General Sherman Tree in Sequoia National Park and the General Grant Tree in Kings Canyon National Park both giant sequoias, are examples of scenic and scientific trees. The trees and forests in cemeteries, battlefields, campgrounds, overlooks, parkways, and landscaped areas are significant because of their aesthetic value as well as for shade and shelter to the park visitor.

Trees such as those mentioned in the foregoing are subject to injury, damage, and depletion from the elements, human use, insects, diseases, and wildlife. Regulated use does not afford sufficient protection. Constant surveillance by specialists to identify deterioration of the trees and to take timely prevention and maintenance measures is essential in achieving the objectives and purposes of this program.

*Plan of work.*—The eastern tree crew consisting of eight men will continue to carry out tree preservation activities in the northeast and southeast regions under the supervision of the northeast regional office. The western tree crew consisting of four men will accomplish similar work throughout the west with staff direction from the southwest regional office.

(d) *Forest fire suppression*

The estimate of $100,000 is the same as that for 1964.

*Plan of work.*—These funds are used solely to cover forest fire suppression and emergency presuppression costs when and as they occur. They are funds which may be required in addition to the regular fire protection service and onsite management activities for fire suppression and emergency presuppression actions. Suppression involves actual on-the-ground firefighting to control fires with dispatch and at least cost. Presuppression activities include stepping up protection forces during periods of critical fire danger as a preparedness measure in the event of fire emergency.

*3. Soil and moisture conservation*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| Soil and moisture conservation | $195,438 | $203,900 | $205,000 | $1,100 | $1,100 | ---------- |

The estimate of $205,000 is an increase of $1,100 over 1964. This increase is for increased pay costs.

The Service's soil and moisture conservation program is directed toward preventing and correcting accelerated erosion, restoration of certain historical scenes and stabilization of areas receiving heavy recreational use. Of the approximately 26 million acres of Federal lands administered by the Service, more than 2 million acres require intensive conservation treatments.

Some of the major soil and moisture problems in the areas administered by the National Park Service have developed through prior misuse of lands in farming, lumbering and grazing. In some cases, immediate corrective action is needed on and adjacent to sites being developed for public use. Other problems have developed because of unnatural concentrations of wildlife, trespass, grazing, and overuse of fragile high mountain meadows in some of the Western parks. These conditions must be corrected through a continuous long-range soil and moisture conservation program.

*Plan of work.*—Other Service programs, such as forestry and fire control, maintenance of grounds and facilities, and certain construction and wildlife management activities are directly related to the soil and moisture conservation program. It is intended that the program be a diminishing one with rehabilitation treatments accomplished as early as practicable and maintenance requirements undertaken as a part of routine maintenance operations. The 1965 program will consist of conservation measures in 43 parks. Approximately 63 percent of the estimate will be directed toward reestablishment of vegetative cover, fencing, brush control, and other soil stabilization measures.

About 13 percent of the estimate involves water management—primarily bank protection and small developments. The remaining 24 percent of the proposed work will involve land-use planning, studies and investigations which are coordinated with programs of adjacent jurisdictions and soil and water conservation districts.

This program is directed by the Washington and regional offices and accomplished by park forces and/or by contract.

*4. Park and recreation programs*

| Subactivity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Resource planning | $699,528 | $674,400 | $692,000 | $17,600 | $17,600 | ---------- |
| (b) Visitor services | 648,671 | 664,900 | 680,000 | 15,100 | 15,100 | ---------- |
| (c) Lands and water resources studies | 391,164 | 430,600 | 440,000 | 9,400 | 9,400 | ---------- |
| (d) Archeological investigations and salvage | 789,305 | 761,700 | 765,000 | 3,300 | 3,300 | ---------- |
| (e) Historic American buildings survey | 146,048 | 142,200 | 145,000 | 2,800 | 2,800 | ---------- |
| (f) Historic sites survey | 137,253 | 152,500 | 155,000 | 2,500 | 2,500 | ---------- |
| Total | 2,811,969 | 2,826,300 | 2,877,000 | 50,700 | 50,700 | ---------- |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*(a) Resource planning*

The estimate of $692,000 is an increase of $17,600 over 1964, which is for increased pay costs.

This continuing program is comprised of two main functions: National Park and Recreation Area Planning and Planning Service. Under the national park and recreation area planning function, studies are conducted to determine the significance, suitability, and feasibility of areas proposed for inclusion in the national park system. It also includes the assembly and dissemination of material and data necessary to assist in the authorization of a project; development of information to assure that park boundaries are adequate to permit accomplishment of the purpose for which a park was established; and the formulation of a long-range national park system plan, including identification of areas of national significance which are suitable for national park system status.

The Planning Service function consists of the Service's participation in recreation site planning for the Bureau of Reclamation, Corps of Engineers, Bureau of

Indian Affairs, Fish and Wildlife Service, Federal Power Commission, and other Federal agencies as requested; rendering cooperative assistance to States and other political subdivisions in park development and operation matters; assisting administering Federal agencies in negotiating agreements with State and local agencies for operating recreation lands and facilities developed with Federal funds; and making periodic inspections of transferred recreation areas to determine compliance with conditions of agreement.

*Plan of work.*—The major portion of the work is performed by basic staffs located in the Washington office and five regional offices. The staffs are composed mainly of specialists in park and recreation planning. Certain specialized phases of the program may be accomplished through contracts with private and public organizations, such as universities and research foundations.

With respect to the planning service function, the estimate provides for little more than basic minimum staffing for the direction and coordination of site planning for other agencies. It therefore contemplates that most of the site planning work for other agencies will be accomplished on a reimbursable basis except for coordination and direction costs.

(*b*) *Visitor services*

The estimate of $680,000 is an increase of $15,100 over 1964. This increase is for increased pay costs.

This subactivity finances the continuing functions in the Washington and regional offices that are primarily concerned with the park interpretive programs—history, natural history, photographic, and audiovisual functions. Staff members engaged in these functions also collaborate in the evaluation of areas proposed for addition to the national park system and in the formulation of master plans for existing ones.

In compliance with the basic congressional directives to formulate a program to conserve the Nation's heritage of scenic, historic, and scientific objects, including wildlife, in the national park system and to provide for keeping it "unimpaired for the enjoyment of future generations," the history, natural history, and audiovisual programs are dedicated to using and preserving park areas and through various media making them meaningful to the visitor today, tomorrow, and for years to come. These programs are such that it has been necessary to center the coordination, leadership, and servicewide direction of them in the Washington and regional offices.

The long-range objectives, which are dependent upon the development and use of complete and accurate data, are summarized as follows: (1) To safeguard scenic, historic, and scientific values and resources, (2) to maintain a high standard of integrity, (3) to provide the best interpretive service to the visitor, and (4) to make effective use of available manpower and funds.

The approximately 100 historical areas administered by the National Park Service are mute witnesses of the Nation's past. Their message cannot be understood or appreciated unless effectively presented to the park visitor. A comparable task must be met with respect to an equal number of scenic and scientific areas the Service administers. Visits to areas administered by the National Park Service were approximately 3,500,000 in 1933 and rose to 94,093,000 in 1963. The forecast indicates 108 million visits by 1966. The astronomical rise in visitation correspondingly complicates the conflict of both promoting and regulating visitor use of these priceless areas in the display of their variety while preserving their integrity.

Methods of interpretation to park visitors include literature, signs, markers, museums, exhibits in place, self-guiding trails, audiovisual orientation programs, message repeaters at strategic places, etc. These mechanical aids save manpower, keep the programs vibrant with life, and answer countless questions that the visitors frequently ask. Mechanical methods, however, are not total substitutes for manpower. The scripts for audiovisual orientation, for literature, signs, markers, etc., have to be written by trained historians and naturalists. The work of the field historians and naturalists must be supervised and aided by the regional office staffs and their work in turn coordinated for adherence to standards, policies, and procedures by corresponding staffs in the Washington office.

To accomplish the objective of providing for the enjoyment of the parks, the Service's interpretive programs are designed to enhance visitors' enjoyment by helping them to better understand and appreciate the fundamental values of the parks which lie to a large extent in a scenic, historic, scientific, and wildlife heritage which they preserve. An increasingly important method of serving park visitors is the use of automatic and semiautomatic audiovisual devices which can provide

increased, effective interpretation without park interpretive staffs always having to be present. Through the development and use of tape recorded messages, automatic sound/slide film presentations, automatic motion picture installations, automatic electric maps with tape recorded sound, and other similar audiovisual devices, the historic and scientific stories of the parks can be made to "come alive" for park visitors. Many installations are activated by visitors themselves on a "demand" basis by pressing a button; others are operated by visitor center personnel on a scheduled basis. The Washington and regional office staffs are jointly and continually striving to improve the methods and devices, using the experience gained in one park to benefit another, so as to make the best use of the manpower and other resources available.

*Plan of work.*—The visitor services program, which is carried out by Service employees in the Washington and regional offices, provides technical and scientific services and guidance in the fields of history, geology, biology, botany, etc., essential to the interpretation and public use of the historic and natural parks of the national park system. Most of the audiovisual work connected with the utilization of tape recorded sound, still photographs, filmstrips, color slides, and related printed commentaries will be accomplished by Service personnel.

(c) *Lands and water resources studies*

The estimate of $440,000 is an increase of $9,400 over 1964. This increase is for increased pay costs.

The land use program is a continuing one, the objective of which is to provide technical assistance in solving a variety of problems relating to uses made of park lands, such as highway and utility rights-of-way and easements, agricultural permits, private accesses, and continued use and occupancy reserved by owners in deeds of conveyance. Also involved are adverse uses, such as those covered by grazing permits, some of which were inherited from other Federal agencies, mining claims and trespass, and assistance in the acquisition of the non-Federal lands within the boundaries of the park areas and those authorized for establishment. The water resources studies program is also a continuing one. Its primary objectives are to (1) locate adequate sources of water supply, (2) determine the annual and seasonal water needs for the parks, and (3) determine the extent to which the water is already appropriated and the best methods by which to establish Federal rights to its use in compliance with the water laws of the several States.

The following tabulation shows the amount programed for each function:

| Function | Amount available, 1963 | Appropriation, 1964 | Estimate, 1965 | Increase |
|---|---|---|---|---|
| Land use studies | $190,515 | $205,300 | $211,600 | 6,300 |
| Water resource studies | 200,649 | 225,300 | 228,400 | 3,100 |
| Total | 391,164 | 430,600 | 440,000 | 9,400 |

*Plan of work.*—Land use studies: The work plan contemplates providing technical services and guidance to the park superintendents and their staffs concerning various land use and land acquisition matters as discussed in the foregoing. The functions are performed by employees of the Service at the regional and Washington office levels.

Water resource studies: This program calls for a continuing effort to locate sources of water supply necessary for operating the parks and for use of visitors, and the determination of methods for establishment or acquisition of rights to the use of such sources in compliance with the water laws of the several States. The work is performed primarily under the technical guidance and supervision of the staffs in the regional and Washington offices, with some technical assistance provided by the Geological Survey on a reimbursable basis. Where feasible and practicable, contracts with local consulting engineers, geologists, ecologists, and other professional specialists are utilized in making these technical studies.

(*d*) *Archeological investigations and salvage*

The estimate of $765,000 is an increase of $3,300 over 1964. This increase is for increased pay costs.

This is a continuing program the objectives of which are (1) to recover a minimum of 10 percent of the scientific archeological data threatened with destruction by multipurpose water control and other construction activities; (2) to disseminate information available, through publication to professionals, interested laymen, etc., concerning material objects recovered, the implications of their special relationships to one another, and scientific relationship to similar classes of data, and (3) to inventory basic archeological values in areas administered by the National Park Service and make them available for display, comparison, and further study.

*Plan of work.*—This program deals with archeological surveys, investigations, and/or excavations in reservoir areas under construction by Federal agencies and in the parks of the national park system. The major portion of the work (70 to 80 percent) is accomplished through contracts with qualified State and local educational and research institutions.

(*e*) *Historic American buildings survey*

The estimate of $145,000 is an increase of $2,800 over 1964. This increase is for increased pay costs.

This is a continuing program for making and preserving records of existing structures of historic and architectural significance in the United States and its possessions. The first aim is the conservation of national cultural resources in historic architecture and its secondary aim is service to the public by making available and preserving exact records of this cultural background of American history.

The backbone of current field operations is the work of architectural students. Academic progress stimulated by the survey has proved successful to the point that the survey is recognized as a special and important instrument in the training of future architects. As of now 11 colleges conduct an active participation program and the list grows. The cooperative relationships which the survey encourages grow steadily more far reaching in cumulative results and promise. It is noteworthy that the Urban Renewal Administration has been an ally in a great many preservation and recording efforts in which survey experience has helped.

The historic American buildings survey effort is being coordinated with the historic sites survey so that designated landmarks and buildings of just less than landmark status will be recorded and survey data deposited in the Library of Congress—and herein lies the essence of reciprocity embodied in the Historic Sites Act. Whereas the historic American buildings survey contributes indispensible source material to the historic sites survey in its theme study on architecture, the latter returns the compliment in its providing firm and unimpeachable criteria as a basis for rational decisions on what should be saved and/or recorded and by whom.

It is altogether obvious that the Federal Government cannot bear the enormous burden unaided. The program is designed to achieve the goal of helping States and local groups to help themselves and to assume their just proportion of responsibility. As the survey grows in depth and quality, it becomes increasingly important as a working tool for historians, architects, scholars, and students. The survey activities have been effective in actually saving a number of significant buildings which might otherwise have disappeared unrecognized; however, the progress to date has only scratched the surface.

*Plan of work.*—Preliminary and advance surveys to evaluate structures will be continued. Field measuring and photographic programs will be used to take full advantage of the outstanding work accomplished by national and local historical societies as well as various other surveys conducted by the Government. The material produced will be integrated in the work of the Historic American buildings survey. Teams composed of architectural students under the direction of specially qualified and selected professors of architecture, perform the greater part of all field measuring and execution of drawings. The program will foster close cooperation with the many smaller historical societies by instruction and guidance in preservation and recording projects. Photographic material, available for loan to these and other organizations will be made available with commentary on architectural values of the particular localities to assist in recognition of buildings worthy of recording, preservation, or restoration. This material will also be available to colleges and universities. A movement to increase recording and preservation by State, county, and city will be encouraged. It has been recognized

that mutual benefits would be derived from the introduction of the recording work into the collegiate routine of architectural education. The Service proposes to cooperate with schools of architecture that include recording projects and historical documentation for the Survey in their program and to purchase for nominal amounts, often at less than their real value, reproductions of students' drawings meeting the requirements set forth by the Service. Students whose work is sufficiently outstanding will also be offered summer employment. Emphasis will be placed on the recording of buildings receiving "Landmark" and "Exceptional Value" status under the various themes of the historic sites survey now being conducted by the Service as a separate program.

*(f) Historic sites survey*

The estimate of $155,000 is an increase of $2,500 over 1964. This increase is for increased pay costs.

This is a continuing program, the purpose of which is to discharge the Secretary of the Interior's responsibilities as set forth in the Historic Sites Act of August 21, 1935; namely, to make surveys that will lead to the preservation for public use of historic sites, buildings, and objects of national significance for the inspiration and benefit of the people of the United States. The basic data developed by the program aid the Federal Government in determining its role in historic and prehistoric preservation. In like manner, State and local preservation groups are encouraged to take a more active part in saving the historical heritage. These data are also necessary in preparing Presidential proclamations, national historic site designation orders, departmental reports on proposed legislation, replies to congressional inquiries, and to private and semipublic requests regarding the preservation of important sites. They are also essential in assisting the Department of the Army, Bureau of Reclamation, Corps of Engineers, and the Office of Territories with their historic sites problems.

*Plan of work.*—The work of the survey is performed by technical employees of the National Park Service assigned to the three phases of the program, and by contracts with qualified professional historians and archeologists outside the Service.

The survey is conducted by dividing the story of American history and prehistory into 22 themes or periods. Each theme is given intensive study with emphasis on the sites associated with the particular period under survey. Indian history (prehistory) is covered by 5 themes which present the development of aboriginal life from the earliest prehistoric hunters and gatherers through the development of Indian farming, village farming, and contact with the first European explorers, to indigenous groups surviving today. Themes of history begin with exploration and settlement, and trace U.S. history through colonial times, the major wars, expansion to the Pacific, development of natural resources, and development of the United States as a world power. Through this approach, all important sites within a theme are compared and evaluated. All studies are then submitted to the Advisory Board on National Parks, Historic Sites, Buildings, and Monuments for consideration. After reviewing the survey's findings, the Board makes recommendations to the Secretary of the Interior as to sites which should be classified as having exceptional value (national significance).

*5. Concessions management*

| Subactivity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase, 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost[1] | Program |
| (a) Management | $203,435 | $216,500 | $222,000 | $5,500 | $5,500 | ---------- |
| (b) Audit | 279,119 | 289,100 | 295,000 | 5,900 | 5,900 | ---------- |
| Total | 482,554 | 505,600 | 517,000 | 11,400 | 11,400 | ---------- |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*(a) Management*

The estimate of $222,000 is an increase of $5,500 over 1964. This increase is for increased pay costs.

The purpose of the program is to supervise, coordinate, and regulate the establishment, operation, and maintenance of facilities and services being furnished, or

to be furnished, by concessioners to the public in parks administered by the National Park Service. The objective is to have developed by private capital within such parks sufficient, clean, modern, and efficiently operated facilities and services to insure the visiting public a comfortable and enjoyable visit within the parks at prices they can afford to pay. In addition, the important function of furnishing guidance and assistance to municipalities, other Government agencies, State, and foreign governments, which is increasing steadily, will be continued.

*Plan of work.*—The program contemplates general and technical supervision over the establishment, operation, and maintenance of facilities and services being, and to be, furnished by concessioners to the public, and the providing of technical assistance to the superintendents and their staffs relating to all phases of the program, including contract compliance, business procedures, corrective measures when appropriate, and contract terms and conditions. Since visitor housing costs are of major importance, the Service will continue its program of exploring new developments in low-cost accommodations. In addition, the program of exploring and developing new sources of concessioner financing will be continued, as well as giving assistance, when requested, to municipal authorities, other Government agencies, both domestic and foreign, in handling matters of similar nature.

(*b*) *Audit*

The estimate of $295,000 is an increase of $5,900 over 1964. This increase is for increased pay costs. The purpose of the program is to audit the accounts and records of the concessioners and to examine their operating and financial statements to insure that the Government is paid the full amounts of franchise fees due; that rates charged for goods and services are in accordance with contractual stipulations; that financial data are reliable; and that the internal financial controls are adequate to protect the Government's interest.

As visitation to the parks continues to increase, and as new parks come under the jurisdiction of the Service, it is necessary to expand concession operations accordingly. Future plans for the program provide for continuing audits and reports thereon covering these operations on a 3-year cycle which is considered the minimum period for achieving maximum administrative usefulness from the audit reports.

*Plan of work.*—The program entails the audit, by Service personnel, of the accounts and records of concessioners who provide food, lodging, transportation, and various other services and facilities to park visitors, to insure that provisions of the concession contracts have been and are being complied with. It also entails financial surveys, by Service personnel, of the financial ability of prospective concessioners prior to the negotiation of contracts. The plan provides for an audit of each concession operation requiring audit once every 3 years with provision for more frequent audits in particular instances when determined to be necessary.

*Itemization of estimate*

| | Actual, 1963 | Available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $25,225,035 | $27,076,583 | $29,712,000 | +$2,635,417 |
| Unobligated balance | 158,269 | | | |
| Transferred to: | | | | |
| General Services Administration | 600 | 47,417 | | −47,417 |
| Bureau of Outdoor Recreation | 1,101,096 | | | |
| Appropriation | 26,485,000 | 27,124,000 | 29,712,000 | +2,588,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 17,688,503 | 19,900,000 | 21,010,000 | +1,110,000 |
| 12 Personnel benefits | 1,513,052 | 1,502,000 | 1,638,000 | +136,000 |
| 21 Travel and transportation of persons | 618,762 | 650,000 | 680,000 | +30,000 |
| 22 Transportation of things | 266,216 | 275,000 | 280,000 | +5,000 |
| 23 Rent, communications, and utilities | 871,938 | 925,000 | 1,200,000 | +275,000 |
| 24 Printing and reproduction | 349,633 | 374,583 | 465,000 | +90,417 |
| 25 Other services | 1,532,744 | 1,550,000 | 2,100,000 | +550,000 |
| 26 Supplies and materials | 1,111,118 | 1,000,000 | 1,200,000 | +200,000 |
| 31 Equipment | 1,262,629 | 900,000 | 1,139,000 | +239,000 |
| 32 Lands and structures | 8,964 | | | |
| 42 Insurance claims and indemnities | 1,476 | | | |
| Total obligations | 25,225,035 | 27,076,583 | 29,712,000 | +2,635,417 |

HAMILTON GRANGE NATIONAL MEMORIAL

Chairman HAYDEN. In last year's presentation it was stated that the lands to be donated for the Hamilton Grange National Memorial would be in Federal ownership prior to the end of the 1963 fiscal year, after which the responsibility of the National Park Service for management, protection, and interpretation would commence.

This year's presentation indicates that the title to the lands has not yet been transferred, but that you expect the donation will be made within a "short time." What happened to delay transfer of title for at least a year, and what assurances do you have that you will acquire title so that you can begin your work within a reasonably short time?

Mr. HARTZOG. May I ask Mr. Price to answer that question?

Mr. PRICE. Mr. Chairman, I might say that the title papers for the transfer of this land are now being studied by the Department of Justice as required by law. We expect completion of the title review and transfers of the title in the very near future.

NEW PARK AREAS ACTIVATED SINCE BEGINNING OF MISSION 66

Chairman HAYDEN. For new parks activated since the beginning of Mission 66, and now but partially financed, you are asking an increase of $401,000 over the appropriation of $1,275,700 for fiscal year 1964. With this increase you will fill 25 new permanent positions. Would you please comment on the need for these positions?

Mr. MONTGOMERY. Mr. Chairman, these are areas that have come into the system since Mission 66 was commenced back in 1956. These areas have been activated on a skelton staffing basis. In other words, we have put the minimum of employees in them as operations have commenced.

As visitation increases, as facilities are provided, as the workload increases, we ask for additional staffing. We had a similar item last year which was provided for. This is a further step to staff these areas in a manner commensurate with the staffing of other comparable areas.

ADJUSTMENT IN POSITIONS BETWEEN NEW AND PRE-MISSION 66 AREAS

Chairman HAYDEN. You state that these positions will be met through reductions in permanent positions in pre-Mission 66 areas. Do you anticipate that this action will result in a reduction in the budget estimate for those areas?

Mr. MONTGOMERY. No, sir. Actually, we are not asking for any additional permanent positions in our overall budget. We are realining some of our functions and making positions available for some new functions that have been provided in the past for old functions. What we are doing, we are taking a hard look at the staffing that is provided for each operation. We propose to make adjustments between organizational entities when we determine it is feasible and appropriate to do so to provide for a need such as this. We know that some of our work heretofore performed with our own forces can be done by contract. We are proposing to do that where it would be economical to do so.

We feel that some of the functions that have heretofore been performed by permanent personnel can be performed by seasonal

personnel. Where that can be done, we propose to implement it and to make these adjustments.

### Converting Park Radio Systems to Narrow Band Frequencies

Chairman Hayden. At the present rate of converting park radio systems, do you believe that it will be possible for the Park Service to make all conversions by the November 1, 1966, deadline proposed?

Mr. Montgomery. We think so, Mr. Chairman, with the increase that we have proposed here. We have had $67,500 available for this purpose during each of the past 2 fiscal years. This would add $68,000 in 1965 and at that rate we feel that we can meet the deadline of November 1966.

### Natural Science and Wildlife Management Studies

Chairman Hayden. I find in your budget a proposed increase of $150,000 for natural science and wildlife management studies. If this amount is approved, how much will you have for this purpose in fiscal year 1965?

Mr. Hartzog. We would have $178,000. There is $28,000 now in the base for 1964. This would provide additional money to staff a minimum organization.

Chairman Hayden. Would you explain to the committee just what you plan to accomplish with such money and explain why it is considered by the National Park Service to be "of extreme urgency" to undertake these studies?

Mr. Hartzog. Sir, if we may, we will file for the record a list of the studies which we would propose to undertake if the Congress makes available this additional money. We feel this need is urgent. As I mentioned in the earlier statement, the national park system has evolved for almost a hundred years now. At the time that many of the national parks, particularly in the West, were established, protection and protection alone was adequate to preserve the values that were there. As Dr. Starker Leopold and his board have pointed out, with this constant policy of protection followed over long periods of time, the very character of the area is being changed. Unless we are to lose the significance of the area it is going to be necessary that we adopt certain management practices to restore the area and keep it like it was. In order to do this, we need the fundamental information on which we can make intelligent management decisions.

Chairman Hayden. Would you also please break down the amount requested between wildlife management studies and natural science studies?

Mr. Hartzog. Mr. Chairman, this list we have here breaks it down for you.

(The document referred to follows:)

### Studies To Be Made With Requested $150,000 Increase

*Full-time studies*

*Dinosaur.*—The wildlife balance has been distorted by earlier range depletion, lack of full recovery and by overlapping range of deer and cattle.

The biologist will study the overall situation, with special reference to range conditions, status of deer, bighorn and beaver, degree of competition between cattle and deer or other wildlife.

*Glacier National Park.*—Elk and deer ranges are overcrowded; browse species have been severely reduced. Bighorn have declined for reasons unknown.

A full-time biologist is needed to develop a management plan for restoring forest and browse reproduction to normal levels, to determine elk and deer population levels that will permit range recover, and to determine the cause of bighorn decline and methods of restoring the animals.

*Southwest areas.*—Deterioraition of the original range is evident at Carlsbad, Petrified Forest, Chiricahua and neighboring Southwest Monuments. As a result, deer have been reduced considerably from original numbers and bighorn have vanished from areas where they previously occurred. Associated wildlife species likewise have been reduced. Soil erosion has occurred where the original natural cover has been stripped away.

The need is for a full-time worker to determine the causes and extent of this deterioriation for each of the Southwest areas affected, and to determine what measures can be effectively applied by management to restore these areas to a healthy condition.

*Wind Cave-Badlands.*—Biologist will make range studies at Wind Cave to develop a formula to govern the management of the bison, antelope, and elk, in coordination with State programs. At Badlands, range studies are also required to manage reintroduction of bison and bighorn, and to keep close watch on the situation until the species become well established.

*Zion and Bryce National Parks.*—Bighorn have become extinct. The deer natural habitat is deteriorating.

The reasons for the disappearance of the bighorn are not yet known. Full-time work is needed to determine how to improve the habitat and to determine when and if bighorn can be reintroduced.

*Contract studies*

*Grand Canyon—Kiabab squirrel.*—Minimum help is planned for continuation of a study by an independent scientist who is giving special attention to the food and environmental requirements of this unique species. Support by the National Park Service is largely for logistic support, and anticipates data that will assist in the continued preservation of this species.

*Great Smoky Mountains—Montane Meadows (the balds) conservation.*—Mountain meadows, called balds, have been in various stages of disappearance for at least 30 years due to the encroachment of forest tree species. It is believed by some that the balds are of natural occurrence; others believe they are of Indian or early white man origin. There are probably some of each. The balds contain species and combinations of species that are unique. The problem is multiple-fold: which balds are naturally occurring, why are they disappearing (which is to say, why are trees invading them), and how may these unique areas be preserved.

The Department of Botany of the University of Tennessee has conducted research in the balds to the extent that finances would allow. A beginning has been made in establishing study plots in the balds. The proposed studies will supplement the earlier ones, but will not duplicate them. No other Government agency is, or has been, engaged in research on these balds.

*Hawaii.*—Massive invasions and severe competition by exotic plants and animals threaten the existence of native Hawaiian plants and animals that are found nowhere else in the world. It is essential that we determine the extent of the impact of exotic species and ways in which this impact can be lessened or eliminated; determine the extent of impact of developments outside of park and development of ways which this impact can be lessened; and develop methods by which park management can restore and maintain the original natural ecological conditions, including the rescue of several species of plants and birds on the verge of extinction.

These studies will include a survey of the vegetation through ground observations and aerial photography; the preparation of maps of vegetation on which occurrences of rare species are plotted in addition to the general vegetation types; the establishment of study plots in various vegetation types to determine extent that original vegetation has been altered by exotic animals and humans, and to determine extent to which exotia plants have invaded the areas.

*Isle Royale.*—One of the most complete studies in detail encompassing the complete picture of animal life and its relation to the natural environment has been underway for some 6 to 8 years at Isle Royale under the leadership of Dr. Durward Allen of Purdue. Already this has provided invaluable data re the status and management of wolf, moose, and has resulted in a technical publication (in press) and an article in the National Geographic, on the wolf.

This is largely financed through the university. National Park Service support helps to maintain the continuity and influences the orientation in a direction most useful to the Service.

*Mesa Verde—Wildlife restoration.*—Numerous wildlife protection and restoration measures have been carried out at Mesa Verde, but without the information necessary to insure their effectiveness. Bighorn were reintroduced but left the park for a number of years, and have only recently begun to reestablish themselves in some areas. Information is needed as to the basic requirements of bighorn at Mesa Verde in terms of range and water supplies so that introductions can be made at the most suitable places and times.

Wild turkeys have gone through a comparable history of relatively unsuccessful restoration, and are barely maintaining themselves. Information is needed on their requirements in order to insure success.

Deer have damaged the range in localized certain key areas. Habitat studies indicated above for bighorn and turkeys should be coordinated with deer habitat studies to provide management with the information needed in working out a joint management program with the State.

*Saguaro-Organ Pipe Cactus—Conservation of the Saguaro Cactus.*—Since the turn of the century the Saguaro and Organ Pipe Cactus have steadily declined. Reproduction is failing to maintain the specimens and future survival is in question. Causes may be due to increased rodent population, cattle grazing, loss of cover and shade over seedlings, erosion and loss of soil nutrients, seed infertility, or other factors. It is necessary to determine the factors involved so that corrective measures and management methods can be applied so as to restore the natural process and strengthen the position of these species.

*Sequoia-Kings Canyon and Yosemite—Sequoia reproduction.*—Sequoia groves in Sequoia, Kings Canyon, and Yosemite National Parks have been involved by dense stands of fire, cedar, and a dense understory of underbrush and forest litter. Sequoias appear to reproduce only in semi-open forest, and on mineral soil. There is concern that this condition will result in the extinction of the species in these groves. The basic question remains unanswered—is this in fact a danger, or is the present situation a stage in a cyclic pattern, involving the sequoias and its understory, that has occurred repeatedly during the many thousand years history at these groves—and is this condition requisite to the perpetuation of the species? Until this question is answered, it would be unwise to interfere in any major way with this situation.

The studies must be done in the national parks where the problem exists. The big tree is not a commercially valuable tree and the necessary studies therefore, will not be done except in the parks.

Studies have been done under contract for the Service during the past few years by Dr. Richard J. Hartesveldt, of San Jose State College, California; Dr. James D. Blick and Mr. Thomas Aley, of the University of California. These researchers have studied and utilized all of the research done previous to their own studies; there has been no duplication of effort.

There are no current studies, germane to the problem at hand being carried out by any other Government agency or private institution. The National Park Service proposes to continue to support the excellent work begun by Dr. Richard J. Hartesveldt for the solutions to sequoia management problems.

*Yellowstone—Grizzly bear.*—Extensive studies through the Montana Wildlife Unit, have been in progress for several years focused upon all aspects of the life, requirements, and status of the grizzly bear. This is largely financed through the cooperative unit, several agencies participating. The National Park Service is concerned with the continuation of this study since Yellowstone Park is perhaps the most important sanctuary for this animal. These studies are expected to result in the most complete knowledge of the grizzly, and serve as the base for any management measures that may be needed for protection of people and preservation of the bears.

This is a major cooperative research project enlisting the skills, contributions, and know-how of many agencies. The National Park Service will be a major beneficiary of this project although it is being asked to contribute only a minor proportion of the total cost.

The studies must be done in Yellowstone National Park because this is one of the few areas in the United States, other than Alaska, where grizzlies exist in significant numbers.

Some preliminary publications by Dr. Craighead and associates have been issued, particularly the article "Radiotracking of Grizzly Bears," Bio-Telemetry, Pergamon Press, 1963, pp. 133–148.

*Yosemite Valley—Vanishing meadows.*—The floor of Yosemite Valley is undergoing a massive invasion of forest trees. Old-time photographs compared with those taken today show that the meadows are disappearing. We believe that this may not be wholly due to natural factors.

What is now needed is a study leading to methods and a management plan for restoring the primitive more open forest and the vanishing meadows. The longer the solution is postponed, the more difficult and costly is the remedy. Solutions arrived at in Yosemite may be applicable to comparable situations at Lassen, Sequoia-Kings Canyon, as well.

*Studies and services with WAE personnel*

1. Studies in Big Bend, Dinosaur, Grand Canyon, Grand Teton, Olympic, Rocky Mountain, Sequoia-Kings Canyon, Yosemite, and other areas as needed—temporary employment of field assistants and clerical personnel in support of full-time studies by the permanent staff.

2. Consultive and advisory service in support of the total program, primarily to secure expert guidance in carrying forward the recommendations of the Leopold and Academy committees.

3. Death Valley-Joshua Tree—Bighorn study. Continuation of this study by a WAE professional employee.

### Frederick Douglass Home

Chairman Hayden. Has title to the Frederick Douglass Home been transferred to the United States yet?

Mr. Hartzog. No, sir; it has not. But Mr. Jett has an explanation on that for you.

Chairman Hayden. I note that in last year's presentation you stated that it was expected that title would be transferred by the beginning of the 1964 fiscal year, and in the current presentation you believe that it will be in Federal ownership prior to the beginning of the 1965 fiscal year.

Mr. Jett. Mr. Chairman, we found that two organizations were involved in the ownership and management of the Frederick Douglass Home, one of whom the attorneys indicated did not have the authority to transfer it. Through the year our attorneys and the Justice Department have been working with the two organizations. Now, the necessary authority has been established to transfer this property to the United States. The deed is being reviewed by the Justice Department and we expect fully that within a month, certainly by July 1, we will have it in Government ownership.

### Additional Park Police

Chairman Hayden. Again, you are requesting funds to add 10 additional U.S. Park Police to your force. Would you care to comment upon the continued need for this personnel?

Mr. Jett. Mr. Chairman, the present strength of the U.S. Park Police is 262 uniformed men, 86 of whom are financed in the District of Columbia budget and 176 of whom are financed in the U.S. budget. We are asking for a 10-man increase under each of these appropriations which would bring the total strength of the force to 282 uniformed employees and 7 civilian employees. Mr. Chairman, we feel that these added police officers are necessary in order to afford adequate protection to visitors in the park areas of the Nation's Capital. We find in some of our in-town areas we are unable to have a footman, for example, in Lafayette Park, Meridian Hill Park, Franklin Park. We do not have a man on duty in these parks between the hours of

11 and 7 a.m. We feel very strongly that this protection and coverage is necessary.

We have also added responsibilities, for example, the burial of the late President Kennedy in Arlington National Cemetery requires 21 additional man-days of policing a week to handle the traffic on Memorial Drive and along the approaches to Arlington National Cemetery.

Also, there are new areas that have been added to the park system or will be. There is the zoo bypass which we anticipate will be put into use during this year. I think it would be of interest to the committee to know that we carried over 14,981 hours of compensatory time worked by the U.S. Park Police last year, that is in 1962, and an additional 14,168 hours of compensatory time in 1963.

### Fire Protection Program

Chairman Hayden. In connection with your fire protection service, how much, if any, do you use of facilities of the Forest Service in your fire training?

Mr. Hartzog. We try to work very closely with them. We have Mr. Cook here who has been primarily involved in our training program. I would like to ask him to make a statement on that.

Mr. Cook. Ordinarily, for the basic training we train our own men like the States and all other Federal agencies. This week, we are cooperating with the Forest Service, the Bureau of Land Management, Indian Service, and the State of California in a training program at Redding, Calif.

Chairman Hayden. What kind of a fire year have you had during the past 12 months?

Mr. Cook. One of the worst we have had in a good many years. It was the longest and driest practically all over the country and we had more ligntning fires than we have ever had.

Chairman Hayden. And how much supplemental appropriation has it been necessary for you to seek.?

Mr. Cook. $275,000.

### Recreation Resource Planning Program

Chairman Hayden. For resource planning in your park and recreation program you are seeking $692,000. Specifically, what kind of planning do you accomplish?

Mr. Hartzog. This, Mr. Chairman, covers a range of activities which we have organized in national park system planning. This involves the planning for new areas for the national park system which may arise from the theme studies made under the National Historic Sites Act; the national recreation areas identified by the Bureau of Outdoor Recreation for Administration by the National Park Service; and other national park or monument proposals originated by private individuals, Members of the Congress, States, and others. We, likewise, use this to study the boundaries of the existing areas and to determine those which should be revised to include or exclude additional land. Also, we do planning work for the Bureau of Reclamation and other Federal agencies such as for recreational facilities on reservoir areas, site planning, land-use planning, and so forth.

LAND AND WATER RESOURCE STUDIES

Chairman HAYDEN. In the section of your justifications entitled Land and Water Resources Study, I note that during 1963 you performed comprehensive geological and ground water investigations as well as measurements of stream flow and ground water level. Do you do this work with your own personnel, or do you arrange for Geological Survey personnel to do it?

Mr. PRICE. To a large extent, we arrange to have this work done by the Geological Survey on a reimbursable basis. This is particularly true, for instance, in connection with work in the Everglades National Park in Florida.

ARCHEOLOGICAL INVESTIGATIONS AND SALVAGE

Chairman HAYDEN. I think that would be a better way to do it. Will you please prepare for the record a table showing the locations of the archeological investigations and salvage which you have carried on in the past year, showing the costs of each of the investigations, and whether or not they are being accomplished by your own personnel or by contract or cooperative agreement with a state or local institution? It will be well, also, for you to prepare a similar sort of table to cover planned work in 1965.

Mr. HARTZOG. Thank you very much. We are working on it and will put it in the record.

(The table referred to follows:)

*Archeological salvage and investigations projects*

[Symbols: S—Survey; Ex.—Excavation; U/C—Under Construction; A—Authorized; C—Construction S. & T.—Survey and Test; NS—New Starts]

1964 FISCAL YEAR

| Project | State | Status | Complete fiscal year | Type of work | Amount | Total |
|---|---|---|---|---|---|---|
| DeGray | Arkansas | U/C | 1968 | Ex. | $7,500 | |
| Millwood | do | U/C | 1967 | Ex. | 14,000 | |
| Carters | Georgia | U/C | 1968 | Ex. | 22,000 | |
| Fishtrap | Kentucky | U/C | 1967 | Ex. | 9,000 | |
| Barren | do | U/C | 1964 | Ex. | 9,000 | |
| Grayson | do | C in fiscal year 1964. | 1967 | S. & T. | 4,000 | |
| Laurel | do | do | 1968 | S. & T. | 4,000 | |
| Holt | Alabama | U/C | do | Ex. | 9,000 | |
| Hull | Tennessee | C in fiscal year 1964. | do | S. & T. | 9,000 | |
| Priest | do | C in fiscal year 1964. | do | S. & T. | 9,000 | |
| Ocmulgee National Monument.[1] | Georgia | (2) | (2) | (2) | 12,100 | |
| Southeast region, total | | | | | | 108,600 |
| Trinidad | Colorado | C in fiscal year 1965. | 1968 | Ex. | 5,000 | |
| Saylorville | Iowa | C in fiscal year 1964. | do | Ex. | 6,000 | |
| Elk City | Kansas | U/C | 1966 | Ex. | 7,000 | |
| Marion | do | C in fiscal year 1964. | 1967 | S. & T. | 4,000 | |
| Meremac Basin | Missouri | (3) | (3) | S | 5,000 | |
| SCS projects | | | | S. & T. | 3,500 | |
| Grand Portage National Monument | Minnesota | | | Ex. | 5,300 | |

See footnotes at end of table, p. 321.

*Archeological salvage and investigations projects*—Continued

[Symbols: S—Survey; Ex.—Excavation; U/C—Under Construction; A—Authorized; C—Construction; S. & T.—Survey and Test; NS—New Starts]

1964 FISCAL YEAR

| Project | State | Status | Complete fiscal year | Type of work | Amount | Total |
|---|---|---|---|---|---|---|
| Fort Laramie National Monument. | Wyoming | | | Ex. | 3,700 | |
| Dinosaur National Monument | Utah | | | S. & T. | 5,300 | |
| Wind Cave National Park | South Dakota | | | S. & T. | 3,700 | |
| Colorado National Monument. | Colorado | | | S. & T. | 4,200 | |
| Glacier National Park | Montana | | | S | 2,500 | |
| Wilson's Creek Battlefield National Park.[1] | Missouri | | | S | 600 | |
| Midwest region, total | | | | | | 55,800 |
| Colorado River projects: | | | | | | |
| Glen Canyon | Utah, Arizona | U/C | 1965 | Ex. | 15,000 | |
| Hammond | New Mexico | U/C | 1965 | S. & T. | 115,000 | |
| Curecanti | Colorado | U/C | 1968 | do | 16,500 | |
| Texas projects: | | | | | | |
| Amistad | | U/C | (3) | Ex. | 120,000 | |
| Sanford | | U/C | 1967 | do | 12,000 | |
| McGee Bend | | U/C | 1966 | do | 15,000 | |
| Navarro Mills [4] | | U/C | 1964 [4] | S. & T. | 5,000 | |
| Oklahoma projects: | | | | | | |
| Keystone | | U/C | 1965 | Ex. | 16,200 | |
| Markham Ferry | | U/C | 1965 | Ex. | 10,000 | |
| Broken Bow | | U/C | 1966 | Ex. | 9,500 | |
| Short Mountain | | C in fiscal year 1964. | 1968 | S. & T. | 2,500 | |
| Cochiti-Galisteo | New Mexico | C in fiscal year 1965. | 1968 | Ex. | 16,000 | |
| Middle Gila | Arizona | C in fiscal year 1964. | 1966 | Ex. | 16,000 | |
| Navajo National Monument.[1] | Arizona | | | Ex. | 3,000 | |
| SCS water projects | | | | S. & T. | 2,500 | |
| Southwest region total | | | | | | 374,200 |
| Carlyle | Illinois | U/C | 1966 | Ex. | 30,000 | |
| Shelbyville | do | U/C | 1966 | Ex. | 9,000 | |
| Sny Basin | do | U/C | 1966 | Ex. | 9,000 | |
| Mississinewa | Indiana | U/C | 1967 | Ex. | 4,400 | |
| Salominie | do | U/C | 1966 | S.&T. | 3,900 | |
| Monroe | do | U/C | 1965 | S.&T. | 3,900 | |
| Eau Galle | Wisconsin | U/C | 1965 | S.&T. | 5,000 | |
| West Branch Mahoning | Ohio | U/C | 1965 | Ex. | 5,000 | |
| Curwensville | Pennsylvania | U/C | 1966 | Ex. | 5,000 | |
| Shenango | do | U/C | 1966 | Ex. | 6,000 | |
| Allegheny | Pennsylvania-New York. | U/C | 1966 | Ex. | 7,600 | |
| Isle Royale National Park | Michigan | | | Ex. | 1,500 | |
| Fort Necessity National Battlefield. | Pennsylvania | | | Ex. | 2,000 | |
| Morristown National Historical Park. | New Jersey | | | Ex. | 4,000 | |
| Minute Man National Historical Park.[1] | Massachusetts | | | Ex. | 2,500 | |
| Acadia National Park | | | | Ex. | 2,600 | |
| Antietam National Battlefield Site. | | | | Ex. | 1,500 | |
| Harpers Ferry National Historical Park. | | | | Ex. | 1,400 | |
| Northeast region total | | | | | | 104,300 |
| John Day | Washington-Oregon. | U/C | 1968 | Ex. | 30,000 | |
| Lower Monumental | Washington | U/C | 1968 | Ex. | 30,000 | |
| Little Goose | do | U/C | 1968 | Ex. | 20,000 | |
| Lower Granite | do | C in fiscal year 1965. | 1968 | S.&T. | 8,000 | |
| Joshua Tree National Monument. | California | | | S.&T. | 5,000 | |
| SCS Water projects | | | | S.&T. | 3,700 | |
| Olympic National Park | | | | S.&T. | 3,000 | |
| Western region total | | | | | | 99,700 |
| Accokeek area [1] | Maryland | | | Ex. | 9,100 | |

See footnotes at end of table, p. 321.

*Archeological salvage and investigations projects*—Continued

Symbols: S—Survey; Ex.—Excavation; U/C—Under Construction; A—Authorized; C—Construction; S. & T.—Survey and Test; NS—New Starts]

1964 FISCAL YEAR

| Project | State | Status | Complete fiscal year | Type of work | Amount | Total |
|---|---|---|---|---|---|---|
| Great Falls [1] (including Potomac Canal). | Virginia | | | S.&T. | 5,000 | |
| Regional office base map [1] | | | | | 5,000 | |
| National Capital region total | | | | | | 19,100 |
| Grand total | | | | | | 761,700 |

1965 FISCAL YEAR PROGRAM

| | | | | | | |
|---|---|---|---|---|---|---|
| Millers Ferry | Alabama | U/C | 1968 | Ex. | 15,000 | |
| West Point | Georgia | NS 1966 | 1969 | Ex. | 7,500 | |
| Carters | do | U/C | 1968 | Ex. | 36,500 | |
| Fishtrap | Kentucky | U/C | 1967 | Ex. | 17,500 | |
| Green | do | NS 1964 | 1967 | Ex. | 9,500 | |
| New Hope | North Carolina | A | | S. | 3,000 | |
| Devils Jump | Kentucky-Tennessee. | A | | S. | 3,000 | |
| Nickajack | Tennessee | A | | S. | 3,000 | |
| DeGray [1] | Arkansas | U/C | 1969 | Ex. | 7,500 | |
| Virgin Islands | | | | Ex. | 7,500 | |
| Ocmulgee National Monument.[1] | Georgia | | | Ex. | 15,000 | |
| Southeast region total | | | | | | 125,000 |
| Trinidad | Colorado | NS 1965 | 1968 | Ex. | 10,000 | |
| Red Rock | Iowa | U/C | 1967 | Ex. | 8,000 | |
| Saylorville | do | NS 1964 | 1968 | Ex. | 7,000 | |
| Cedar Point | Kansas | A | | S. | 5,900 | |
| Meremac Basin | Missouri | A | | S. & T. | 7,000 | |
| Dinosaur National Monument. | Colorado | | | | 10,900 | |
| Glacier National Park | Montana | | | | 5,000 | |
| Miscellaneous, National Park Service.[1] | | | | | 7,000 | |
| Midwest Region total | | | | | | 60,800 |
| Colorado River projects: | | | | | | |
| Glen Canyon | Utah-Arizona | U/C | 1965 | Ex. | 30,000 | |
| Shiprock Irrigation | New Mexico | NS 1965 | | Ex. | 75,000 | |
| Curecanti | Colorado | U/C | 1968 | S.&T. | 15,000 | |
| Big Meadows | do | A | | S | 2,000 | |
| Rock Creek | do | A | | S | 1,500 | |
| Stillwater | do | A | | S | 1,500 | |
| Dorchester | do | A | | S | 1,172 | |
| Savory-Pothook | do | NS 67 | 1969 | S | 1,500 | |
| Oklahoma salvage projects: | | | | | | |
| Markham Ferry | Oklahoma | U/C | 1965 | Ex. | 41,724 | |
| Texas salvage projects: | | | | | | |
| Amstad | | | | Ex. | 90,000 | |
| Toledo Bend | | U/C | 1967 | Ex. | 10,000 | |
| Proctor | | U/C | 1964 | Ex. | 8,000 | |
| Wallisville | | NS 66 | 1969 | S | 11,764 | |
| Victoria Ship Channel | | | | S | 1,500 | |
| Arizona salvage projects: | | | | | | |
| Middle Gila | | | | Ex. | 13,908 | |
| Cochiti | New Mexico | NS 1965 | 1968 | Ex. | 20,000 | |
| Galisteo | do | do | 1968 | Ex. | 18,000 | |
| Two Rivers | do | U/C | 1964 | Ex. | 14,280 | |
| SCS Projects | Utah | | | | 2,500 | |
| Navajo National Monument [1] | Arizona | | | | 2,500 | |
| Capitol Reef National Monument.[1] | Utah | | | | 1,500 | |
| Padre Island National Seashore | Texas | | | | 1,852 | |
| Southwest region total | | | | | | 355,200 |

See footnotes at end of table, p. 321.

*Archeological salvage anh investigatons projects*—Continued

Symbols—Survey; Ex.—Excavation; U/C—Under Construction; A—Authorized; S. & T.—Survey and Test; NS—New Starts]

1965 FISCAL YEAR PROGRAM—Continued

| Project | State | Status | Complete fiscal year | Type of work | Amount | Total |
|---|---|---|---|---|---|---|
| John Day | Washington-Oregon. | U/C | 1968 | Ex. | 25,000 | |
| Lower Monumental | Washington | U/C | 1968 | Ex. | 22,500 | |
| Little Goose | do | U/C | 1968 | Ex. | 22,500 | |
| Ramparts | Alaska | | | Ex. | 10,000 | |
| Alameda Creek | California | NS 1965 | 1969 | Ex. & S | 10,000 | |
| Mount McKinley National Park. | Alaska | | | | 10,000 | |
| Glacier Bay National Monument. | do | | | | 10,000 | |
| Western region total | | | | | | 110,000 |
| Shelbyville | Illinois | U/C | 1966 | Ex. | 3,530 | |
| Carlyle | do | U/C | 1966 | Ex. | 32,000 | |
| Rend Lake | do | NS 1965 | 1969 | S | 2,000 | |
| Mississinewa | Indiana | U/C | 1967 | Ex. | 4,500 | |
| Brookville | do | NS 1966 | 1968 | Ex. | 2,500 | |
| Eau Galle | Wisconsin | U/C | 1965 | Ex. | 2,500 | |
| Kickapoo | do | NS 1967 | 1970 | Ex. | 3,000 | |
| New Cumberland | Ohio-Pennsylvania. | U/C | 1963 | Ex. | 3,000 | |
| Cowanesque | Pennsylvania | NS 1966 | 1968 | Ex. | 9,000 | |
| Tocks Island | New Jersey | NS 1968 | 1970 | S | 2,000 | |
| Davenport | New York | NS 1968 | 1970 | S | 2,000 | |
| Bloomington | Maryland | NS 1967 | 1969 | S | 2,270 | |
| New England reservoirs | | | | S & Ex. | 8,000 | |
| Isle Royale National Park | Michigan | | | | 1,500 | |
| Fort Necessity National Battlefield. | Pennsylvania | | | | 2,000 | |
| Morristown National Historical Park. | New Jersey | | | | 2,000 | |
| Minute Man National Historical Park. | Massachusetts | | | | 2,000 | |
| Acadia National Park | Maine | | | | 1,000 | |
| Antietam National Battlefield Site. | Maryland | | | | 1,500 | |
| Harpers Ferry National Historical Park. | West Virginia | | | | 1,500 | |
| Saratoga National Historical Park. | New York | | | | 2,500 | |
| St. Croix Island National Monument. | Maine | | | | 1,000 | |
| Salem Maritime National Historic Site. | Massachusetts | | | | 1,000 | |
| Mound City Group National Monument. | Ohio | | | | 2,000 | |
| Fort McHenry National Monument. | Maryland | | | | 1,500 | |
| Northeast region total | | | | | | 95,800 |
| Accokeek area [4] | Maryland | | | | 10,000 | |
| Upper Rock Creek [4] | Maryland | | | | 3,800 | |
| Regional office base map [4] | | | | | 1,700 | |
| Misc. Construction Projects [4] | | | | | 2,700 | |
| National Capitol Region total | | | | | | 18,200 |
| Grand total | | | | | | 765,000 |

[1] It is contemplated that these projects will be done by National Park Service personnel. The others will be accomplished by contracts with appropriate State and local institutions in which case it is estimated those institutions will contribute approximately the same amount ($274,000) of their own funds and equivalent services as they did in fiscal year 1963.
[2] Report and analysis prior studies.
[3] Unknown.
[4] May be ahead of schedule and finished fiscal year 1963.

### Historic American Building Survey

Chairman Hayden. Do you have any particular comment with regard to your historic American buildings survey?

Mr. Stratton. Mr. Chairman, the historic American buildings survey is a long-range program for assembling a national archives of historic American architecture. It was started in 1933 and has had the combined support and efforts of the American Institute of Architecture Executives as well as the Library of Congress.

At the present time a great number of drawings and photographs have been assembled and deposited in the Library of Congress and is available for the public. During the war years, this was stopped because of lack of funds and manpower but the survey was renewed in 1957 and today the collection is one of the largest in the Library of Congress for this particular type of thing. I understand there was some interest about what we are doing in the District of Columbia in this regard.

Chairman Hayden. I have received a specific inquiry relative to a survey of historic buildings and sites in the District of Columbia. How much work are you doing in this area?

Mr. Stratton. In the 1965 budget there is planned a measuring team of four architectural students under the professional direction of an architect. During the 1965 program the team should be able to record by photographs historic data and measured drawings of at least three or four significant historic buildings. We have, of course, already in the past several years, done this in relation to the Hayes Manor, the Rockledge, Jones Point Lighthouse, Christ Church, and several others in the District of Columbia. We will continue this.

### Blue Ridge Parkway Extension Study

Chairman Hayden. In fiscal year 1963 the Senate report on this bill indicated that a survey should be made of the proposed national parkway from the Blue Ridge Parkway into the State of Georgia. What is the status of this survey?

Mr. Hartzog. Mr. Chairman, this survey has been completed. We have a statement on that study if you would like to have it.

(The statement referred to follows:)

### Status of Study of Blue Ridge Parkway Extension into Georgia

On June 27, 1963, a report on the feasibility and desirability of developing a national parkway extending from the Blue Ridge Parkway near Beech Gap, N.C., southwest into Georgia, was submitted to Congress by the Secretaries of Interior and Commerce. The report was prepared in accordance with the act approved August 10, 1961 (Public Law 87–135, 87th Cong.), which instructed the National Park Service and the Bureau of Public Roads to make a survey of such a parkway running by Cashiers and Highlands, N.C., into Georgia in the direction of Atlanta.

The report recommends congressional approval of an extension of the parkway generally following the Blue Ridge Mountains for approximately 190 miles from Beech Gap to an intersection with U.S. 41 and Interstate Route 75, north of Marietta, Ga. Nearly half of the total distance of the recommended extension lies within two national forests. Location and planning within the forest boundaries would be coordinated with the Forest Service. Secretary of Agriculture Orville L. Freeman's endorsement of the parkway proposal is included in the report.

The report recommends that the principle of cooperative development of the parkway follow the pattern of the Blue Ridge Parkway and other national park-

ways with land acquisition by the States; construction and maintenance by the Federal Government; and the construction of motorists' facilities by private concessioners. The estimated cost would be approxiately $72,778,000 for all road construction and related costs of developed areas for visitor use, except for concessioner buildings, such as lodges, restaurants, and motor service buildings. Land acquisition costs are not included.

Of the estimated cost $17,301,000 would be required for construction of 43 miles in North Carolina and $55,477,000 for 147 miles in Georgia.

The following bills have been introduced in the 88th Congress to authorize the acceptance of donations of land and the construction, administration, maintenance of the extension by the Secretary of the Interior: H.R. 7956 (Davis of Georgia); H.R. 7704 (Taylor of North Carolina); and H.R. 7703 (Landrum of Georgia). No action has been taken on these bills.

Chairman HAYDEN. Do you have any idea when funds will be requested to initiate construction?

Mr. HARTZOG. The extension has not been authorized by legislation. We have programed all that the existing legislation covers. This extension will need new substantive legislation.

Senator BIBLE. May I interrupt Mr. Chairman to ask one question?

Chairman HAYDEN. Yes.

### NATIONAL PARKWAY POLICY

Senator BIBLE. Have you developed a parkway policy within the National Park Service of the Department of Interior? What is your policy on parkways? We are receiving a tremendous number of requests for them in all areas of the United States. I would like to have you develop, and do it under a separate memorandum, a statement of your policy on national parkways—how you meet the criteria, how many parkways we actually have now, what they cost, how many surveys have been authorized, and what you are undertaking? I would like to have that supplied.

Mr. HARTZOG. Thank you, sir, we will be happy to prepare that and send it to you by letter.

### ELK MANAGEMENT IN YELLOWSTONE NATIONAL PARK

Mr. MCGEE. In view of the additional elk traps purchased last year, do you anticipate that the entire elk reduction this year can be carried out by the live-trapping method?

Mr. HARTZOG. Yes, sir; except for a small number of elk which are collected periodically throughout the year for cooperative study purposes with the Montana Fish and Game Department's Wildlife Laboratory at Montana State College. The biological data obtained from these studies will furnish comprehensive information on the wildlife population. Construction of additional traps, through the use of operational funds, has been of considerable added assistance in furnishing live elk to the recipients.

Mr. MCGEE. How many elk must be removed from the herd this year?

Mr. HARTZOG. It is our plan to remove approximately 1,100 animals from this herd.

Mr. MCGEE. Have the herd reductions yet reached the point where there will be just a minimal thinning out each year as compared with the very large reductions of the past few years?

Mr. HARTZOG. Yes; through a reduction of the annual estimated increment to the northern Yellowstone elk herd.

Mr. McGEE. Do you anticipate any problems with this program this year or in the future?

Mr. HARTZOG. No sir, in fact the reduction for this year is nearly complete without any problems. We are uncertain as to the future at this time, but are hopeful no problems will develop.

### FISH STUDY IN YELLOWSTONE NATIONAL PARK

Mr. McGEE. I am advised that in the past few years, the Park Service has been allocating funds to the Fish and Wildlife Service to conduct the fishery study on Yellowstone Lake.

This work being carried on is most important for fishing in that lake is very big business. The summary report of the fishery management program on Yellowstone Lake for 1963 indicates that there were 192,332 anglers on the lake in 1963 who spent 419,310 hours to catch 321,523 cutthroat trout.

As I understand it, this project involves the inventory of all waters of the lake and its drainage area for their fishery potential and a continued study of the fishing pressure for future management and increased use by the public. In view of the ever-increasing number of visitors to this great national park, I feet it is essential that an adequate fishing study be continued since fishing in the lake is one of the most popular attractions of the park.

Do you intend to allocate funds again this year to continue this study?

Mr. HARTZOG. We do plan to continue our temporary support of the study in fiscal year 1965. The Fish and Wildlife Service made studies of the Yellowstone Lake fishery for a number of years, developing information of much use to this Service in its fish management program. Two years ago the Fish and Wildlife Service found that it was unable to continue to support these studies within its management program. In order that we would not lose the benefit of previous studies in the year-to-year management of the fishery, we temporarily reprogramed park operating funds that has been provided for other purposes, so that studies by the Fish and Wildlife Service could continue at a maintenance level and on a reimbursable basis. We have continued to benefit from this year-to-year appraisal of the fishery.

Mr. McGEE. If such funds are not avaiable, how much would be needed to adequately carry forward this study?

Mr. HARTZOG. It is our understanding that an annual appropriation of $50,000 would be required. This would put the study on a secure and permanent basis, and broaden it to cover some of the other important fishery waters of the park, as well as Yellowstone Lake and its drainages.

Chairman HAYDEN. There will be included in the record the statments in justification of the budget estimate for "Maintenance and rehabilitation of physical facilities" in the amount of $23,500,000, which is $1,933,250 more than was appropriated in fiscal year 1964. Of this estimate $9,500,000 is for roads and trails, and the other $14 million is for buildings, utilities, and other facilities.

(The justification referred to follows:)

## Maintenance and Rehabilitation of Physical Facilities

### HIGHLIGHT STATEMENT

*Broad purpose and long-range objectives of program*

The maintenance and rehabilitation of physical facilities program is directed toward keeping, as nearly as possible, all park physical facilities—roads, trails, buildings, utilities, etc., in their original condition, as constructed or as subsequently improved, and providing sanitation, utility, grounds maintenance, and other services required by the visiting public.

A primary objective of Mission 66 is to be in a position to accomplish satisfactorily the foregoing when adequate facilities of all types have been provided and the visitor use reaches an estimated 108 million in 1966, the last year of the 10-year period.

*Accomplishments during the past year*

The significant accomplishments during 1963, stated briefly, were the maintenance and operation of facilities which were utilized by 94.1 million visitors with only a few complaints by the visiting public of a general nature and the successful assumption of the maintenance and operation of newly constructed facilities and those in new areas activated during the year.

*Objectives and program for budget year*

Objectives for the budget year are to keep this segment of the Mission 66 program on schedule to the fullest extent possible.

The program for 1965 contemplates a continuation of the rise in visitor use and expanded maintenance and operating requirements due to the completion and placing into operation of new or reconstructed facilities.

*Maintenance and rehabilitation of physical facilities*

| | |
|---|---|
| Appropriation, 1963 | $20,000,000 |
| Supplemental appropriation, 1963 | 578,550 |
| Total appropriation, 1963 | 20,578,550 |
| Appropriation, 1964 | 21,566,750 |
| Transferred to General Services Administration pursuant to Reorganization Plan No. 1 of 1963 | −25,254 |
| Total available, 1964 | 21,541,496 |

SUMMARY OF INCREASES, 1965

| | |
|---|---|
| Increased pay costs | 57,000 |
| Wage rate increases | 430,000 |
| New park areas for which funds are not now provided | 38,000 |
| New park areas activated since commencement of Mission 66 now partially financed | 298,000 |
| Maintenance and operation of new and reconstructed facilities in pre-Mission 66 areas and more adequate maintenance and operation of facilities existing at commencement of Mission 66 | 935,504 |
| Commercial power and telephone service connection charges | 200,000 |
| Net change, 1965 | 1,958,504 |
| Budget estimate, 1965 | 23,500,000 |

*Analysis by activity*

| | Fiscal year 1963 amount available | Fiscal year 1964 | | |
|---|---|---|---|---|
| | | Total appropriation | Transfers | Amount available |
| 1. Roads and trails | $8,292,742 | $8,784,000 | | $8,784,000 |
| 2. Buildings, utilities, and other facilities | 12,164,415 | 12,782,750 | [1] −$25,254 | 12,757,496 |
| Unobligated balance lapsing | 121,393 | | | |
| Total | 20,578,550 | 21,566,750 | −25,254 | 21,541,496 |

[1] Represents transfer to General Services Administration.

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase, 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. Roads and trails | $8,292,742 | $8,784,000 | $9,500,000 | $716,000 | $24,000 | $692,000 |
| 2. Buildings, utilities, and other facilities | 12,164,415 | 12,757,496 | 14,000,000 | 1,242,504 | 33,000 | 1,209,504 |
| Unobligated balance lapsing | 121,393 | | | | | |
| Total | 20,578,550 | 21,541,496 | 23,500,000 | 1,958,504 | 57,000 | 1,901,504 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*1. Roads and trails*

The estimate for 1965 is $9,500,000, an increase of $716,000 over 1964. The increase includes $24,000 for increased pay costs for fiscal year 1964 positions; $164,000 for wage rate increases already in effect; $3,000 for one new park for which roads and trails maintenance funds have not been provided; $175,000 for new park areas activated since commencement of Mission 66 now partially financed; $350,000 for maintenance and operation of new and reconstructed facilities in pre-Mission 66 areas and more adequate maintenance and operation of facilities existing at commencement of Mission 66, including provision for increased visitor use workload.

*2. Buildings and utilities*

The estimate for 1965 is $14 million, an increase of $1,242,504 over 1964. The increase includes $33,000 for increased pay costs for fiscal year 1964 positions; $266,000 for wage rate increases already in effect; $35,000 for two new parks for which buildings and utilities maintenance funds have not been provided; $123,000 for new park areas activated since commencement of Mission 66 now partially financed; $585,504 for maintenance and operation of new and reconstructed facilities in pre-Mission 66 areas and more adequate maintenance and operation of facilities existing at commencement of Mission 66, including provision for increased visitor use workload; and $200,000 for commercial power and telephone service connection charges.

*Need for increase.*—Fund requirements for maintenance and operation of physical facilities in the parks are governed principally by the size, number, and complexity of physical plants (roads, trails, buildings, utilities, campgrounds, sanitation systems, etc.), the number of visitors accommodated, and cost levels obtaining when the work is accomplished. Large-scale construction and reconstruction programs have been underway since 1957 and are planned through the budget year, resulting in the addition of many new and improved facilities. In addition, the maintenance and operation of such facilities in new parks are commenced from year to year, all of which require additional funds. The continued heavy park visitation exerts additional burden on maintenance and operating funds, and maintenance cost levels have increased steadily since, and even before, the start of Mission 66.

All of the increases requested, except the small amounts for new parks ($3,000 under "Roads and trails" and $35,000 under "Buildings, utilities, and other facilities"), are for going programs. Justification for each of the increases summarized in the foregoing follows:

*Wage rate increases*

| | |
|---|---|
| Roads and trails | $164,000 |
| Buildings, utilities, and other facilities | 266,000 |
| Total | 430,000 |

The funds requested under this item are to cover wage increases in effect as of August 15, 1963, and do not take into consideration such increases that may become effective during the balance of 1964 or during 1965. It is essential that the increase be granted in order that the maintenance and operating program level, heretofore provided for, will not have to be lowered due to the increased personal services costs.

Increases included for National Capital region areas under this item are $12,600 for roads and trails, and $78,500 for buildings, utilities, and other facilities.

*New park areas for which funds are not now provided*

| Area | Roads and trails | Buildings, utilities, etc. | Total |
|---|---|---|---|
| Hamilton Grange National Memorial, N.Y. | $3,000 | $17,000 | $20,000 |
| Frederick Douglass Home, D.C. | | 18,000 | 18,000 |
| Total | 3,000 | 35,000 | 38,000 |

Information concerning the foregoing newly authorized areas is furnished in the management and protection justification. The amounts requested under this appropriation will be required to operate and maintain the physical facilities in the new parks during the estimate year.

The following is a component of cost breakdown of the amount requested for each of the areas:

*Hamilton Grange National Memorial, $20,000*

| | |
|---|---|
| Laborer, ungraded | $4,909 |
| Janitor, ungraded | 4,784 |
| Charwoman, ungraded | 4,784 |
| Temporary employment (0.4 man-years) | 2,023 |
| Total salaries | 16,500 |
| General expenses, including personnel benefits, supplies, equipment, etc. | 3,500 |
| Grand total | 20,000 |

*Frederick Douglass Home, $18,000*

| | |
|---|---|
| Laborer, ungraded | $4,618 |
| Charwoman, ungraded | 4,369 |
| Temporary employment (1 man-year) | 5,613 |
| Total salaries | 14,600 |
| General expenses, including personnel benefits, supplies, equipment, etc. | 3,400 |
| Grand total | 18,000 |

*New park areas activated since the beginning of Mission 66 now partially financed*

| | |
|---|---|
| Roads and trails | $175,000 |
| Buildings, utilities, and other facilities | 123,000 |
| Total | 298,000 |

This item is a companion to the one for which an increase is requested under subactivity 1(a) of the management and protection appropriation item. The amount included in the 1964 maintenance and rehabilitation of physical facilities appropriation for each of the 24 new areas activated since the beginning of Mission 66, or soon to be activated, the number of permanent positions provided for, the amounts and positions proposed for 1965 and the increases in funds and permanent positions requested are as follows:

| Area | 1964 appropriation | | 1965 estimate | | Increases requested | |
|---|---|---|---|---|---|---|
| | Fund allocation | Permanent positions | Fund allocation | Permanent positions | Funds | Permanent positions |
| Arkansas Post, Ark | $6,000 | 1 | $6,000 | 1 | | |
| Bent's Old Fort, Colo | 10,400 | | 10,700 | | $300 | |
| Booker T. Washington, Va | 21,600 | 1 | 21,700 | 1 | 100 | |
| Cape Cod, Mass | 78,400 | 7 | 130,000 | 9 | 51,600 | 2 |
| City of Refuge, Hawaii | 21,700 | 2 | 23,100 | 2 | 1,400 | |
| Flaming Gorge, Utah, and Wyo | 67,100 | 4 | 122,500 | 5 | 55,400 | 1 |
| Fort Clatsop, Oreg | 12,800 | 1 | 13,100 | 1 | 300 | |
| Fort Davis, Tex | 36,100 | 1 | 38,600 | 1 | 2,500 | |
| Fort Smith, Ark | 20,200 | 3 | 20,400 | 3 | 200 | |
| General Grant, NY | 8,300 | 1 | 9,600 | 1 | 1,300 | |
| Glen Canyon, Ariz. and Utah | 197,700 | 18 | 276,000 | 20 | 78,300 | 2 |
| Grand Portage, Minn | 14,500 | 1 | 15,200 | 1 | 700 | |
| Horseshoe Bend, Ala | 19,700 | 3 | 20,400 | 3 | 700 | |
| Lincoln Boyhood, Ind | 11,200 | 1 | 14,000 | 1 | 2,800 | |
| Minute Man, Mass | 40,500 | 4 | 49,600 | 5 | 9,100 | 1 |
| Padre Island, Tex | 19,700 | | 52,400 | 2 | 32,700 | 2 |
| Pea Ridge, Ark | 27,200 | 3 | 37,900 | 4 | 10,700 | 1 |
| Point Reyes, Calif | 21,500 | 1 | 47,500 | 3 | 26,000 | 2 |
| Russell Cave, Ala | 9,000 | 1 | 10,600 | 1 | 1,600 | |
| Sagamore Hill, NY | 32,000 | 5 | 37,300 | 5 | 5,300 | |
| Theodore Roosevelt Birthplace, N.Y | 12,100 | 1 | 12,300 | 1 | 200 | |
| Virgin Islands, V.I | 85,400 | 15 | 94,500 | 17 | 9,100 | 2 |
| Whiskeytown, Calif | 19,900 | 2 | 46,000 | 5 | 26,100 | 3 |
| Wilson's Creek Battlefield, Mo | 12,500 | | 14,300 | | 1,800 | |
| Total | 805,500 | 76 | 1,123,700 | 92 | 318,200 | 16 |
| Less increase for these areas included under heading under heading "Wage rate increases" | | | | | 18,700 | |
| Less increased pay costs for fiscal year 1964 positions | | | | | 1,500 | |
| Program increase requested under this heading | | | | | 298,000 | |

The amounts currently provided, as indicated in the foregoing, have been requested and allocated to meet minimum needs in activating the new areas and their minimum increased requirements to date. Requirements for new areas increase from year to year as progress is made in getting operations underway and in providing services and facilities to meet visitor needs. The increases requested are needed to bring maintenance and operations program levels of the areas involved more nearly in line with those of other comparable areas and to meet the workload anticipated to obtain in the 1965 fiscal year. The increases in permanent positions shown in the above tabulation will be met through reductions in permanent positions in pre-Mission 66 areas where the work currently being performed by incumbents of such positions will be accomplished by contract or by temporary employees.

*Maintenance and operation of new and reconstructed facilities in pre-Mission 66 areas and more adequate maintenance and operation of facilities existing at commencement of Mission 66*

| | |
|---|---|
| Roads and trails | $350,000 |
| Buildings, utilities, and other facilities | 585,504 |
| Total | 935,504 |

Since the beginning of Mission 66, the two major purposes for which increases have been requested in the maintenance and rehabilitation appropriation for areas existing at the commencement of Mission 66 have been: (1) Operating and maintaining newly constructed and reconstructed facilities; and (2) more adequate maintenance and operation of facilities existing at the commencement of Mission 66, including additional requirements brought about by increases in visitor use of those facilities. While they have been presented separately in prior year estimates, the two items have been considered as companion ones in the budget requests. With the passing of time, it has become progressively

difficult to break down the total requirement into the two categories. This is due principally to the fact that amounts appropriated for the purposes have, in many instances, been less than the amounts requested, thereby making it necessary to apply amounts provided for operating facilities existing upon commencement of Mission 66 to the cost of maintaining and operating new facilities, and vice versa. In so doing, continuity of the requests from year to year has been disrupted. For this reason, the two items are combined in this estimate.

While substantial headway has been made through appropriation increases in providing for more adequate maintenance and operation of facilities existing when Mission 66 was commenced and for maintenance and operation of new facilities, the standard of maintenance as contemplated in the Mission 66 program has not yet been attained. Also, as long as the visitor-use workload continues to increase and new facilities continue to be placed into operation, it will be necessary to request additional funds under this heading.

The maintenance and operation of new buildings, such as visitor centers, administration buildings, utility buildings, comfort stations, entrance stations, etc., new and improved campgrounds, new and improved utility systems, and other varied types of facilities provided in the parks under the Mission 66 construction program, bring about heavy increases in annual fund requirements. While some of these new facilities replace old ones for which maintenance and operating funds have previously been provided, most of them represent plant expansion, the maintenance and operation of which can be accomplished only through the provision of appropriation increases, or on a substandard basis through lowering the standard of maintenance of other facilities.

Experience of all agencies points up the fact that for the first 3 or 4 years after a road has been constructed or reconstructed, maintenance costs for drainage and shoulder and slope stabilization work are particularly high. Reconstructed roads are built to a higher standard with lesser grades, wider roadway, shoulders, ditches, and flatter slopes to safely handle increased visitor use. Accordingly, for reconstructed roads, maintenance costs are higher than for the old roads due to need for more frequent mowing, roadside cleanup, and the increased surface to be maintained on the improved road.

Many facets of the workload comprising the maintenance and operation of buildings, utilities, and other facilities are obvious and immediately recognized. However, it might not be fully understood that the placing into operation of a new campground requires, in addition to funds for maintaining guardrails, fireplaces, picnic tables, etc., substantial amounts for sanitation and other cleanup service, including the replacement of garbage and trash containers as they become unserviceable. Also, in placing a new comfort station in operation, in addition to requirements for painting, plumbing repairs, structural repair, etc., the much more costly sanitation service must be performed several times daily while the facility is receiving visitor use. Many other similar operating costs, including janitor services and utilities for new visitor centers and administration buildings, which have a bearing on the Service's maintenance and operating fund requirements, could be cited.

Aside from the increased visitor use of the parks during previously recognized travel seasons, use patterns are changing and extending to the degree that in some heretofore seasonal parks, public use is steadily approaching a year-round basis. New public use areas and improvements of roads tend to spread public use within the parks. Water use and back-country use are steadily increasing. Campground use increased approximately 86 percent from 1956 to 1963. In 1956 camper days totaled 3,628,600 while in 1963 they totaled 6,741,000. All of these factors bring about progressively increasing maintenance and operation fund requirements.

The increases requested in this estimate must be provided if the many facilities are to be operated and maintained at standards that will protect the Government investment and adequately serve the visiting public during the estimate year.

Increases included for National Capital region areas under this item are $42,500 for roads and trails, and $198,600 for buildings, utilities, and other facilities.

*Commercial power and telephone service connection charges, $200,000*

The need for this increase is explained in the justifications under the "Management and protection" appropriation item and, for ready reference, is quoted as follows:

"The Service arranges for obtaining electric power in the parks from commercial sources unless it is determined not to be in the interest of the Government to do so. Mission 66 plans call for the commencement of commerical electric power service in 15 areas in the budget year. Negotiations with the power companies to extend

service to isolated park areas must be on the basis of paying a service connection charge to cover all or a part of the extension costs or, when possible to do so, the paying of increased rates over a specified period until the power company's extension investment is recovered. On the basis of experience to date, more satisfactory and more economical arrangements can be made on the basis of paying a lump-sum charge at the time the service is commenced. In many instances it is not possible to negotiate on any other basis.

"To obtain telephone service in some of the isolated areas or to isolated sections of some areas, it is necessary to construct lines at Government expense from points where the telephone service is required to connect with telephone company lines or to arrange with the telephone companies for extension of their lines. Such arrangements with a telephone company, as is the case with respect to extension of electric lines by the power companies, must likewise be on the basis of paying a service connection charge or paying a higher monthly rate for telephone service over an extended period of time. In most cases, it has been determined to be in the interest of the Government to negotiate with the telephone companies on the basis of making a lump-sum payment at the time the service is connected.

"Such lump-sum payments for both electric and telephone connections are proper for financing under the same appropriation items that finance the electric and telephone service. Negotiations underway for services to be commenced in 1965 carry a connection charge fund requirement of $450,000 of which $250,000 will be chargeable to this appropriation activity and $200,000 to activity 2 of the "Maintenance and rehabilitation" appropriation item. A small increase of $50,000 was provided for the purpose in the 1964 "Management and protection" appropriation but no specific provision for it was made in the "Maintenance and rehabilitation" item. The increase requested for the purpose must be made available if the program for providing adequate electric power and telephone services for the parks is to go forward as planned."

*Plan of work.*—The roads and trails program contemplates maintenance and operation of primary and secondary roads, parkways, airport landing strips, and trails in such a manner as to prevent deterioration in the maintenance of existing mileage, and to provide adequately for new and reconstructed mileage. Maintenance plans and estimates are prepared by engineers based upon field inspections of existing conditions. The proposed increases will be allocated for the purpose mentioned above under the "Need for increase." Where it is possible and economical to do so, the work will be performed under contracts with private concerns; otherwise, the functions under the roads and trails maintenance program are performed by technical, skilled and unskilled employees of the Service assigned to these activities.

The buildings, utilities, and other facilities program contemplates the maintenance, preservation and operation of all physical facilities in the parks other than roads and trails. These facilities include buildings, structures, utilities, campsites, campgrounds, picnic facilities, prehistoric ruins, memorials, historic structures, scientific and historical and archeological artifacts, grounds, etc. As construction projects are completed, many diverse facilities must be maintained and operated to either directly or indirectly serve the visiting public Many of the tasks required to be performed are routine housekeeping functions, such as cleaning and picking up litter, but there are also facilities which involve highly technical work, such as the operation of water, sewer, and sanitation systems, audiovisual installations, and the preservation of priceless historic structures, paintings, and furnishings. While most of the buildings, utilities, and other facilities maintenance and operating functions are carried out by employees of the Service assigned specifically to those tasks, it will be possible and economical in many instances to enter into contracts with private concerns to have the work accomplished.

*Itemization of estimate*

| | Actual, 1963 | Available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $20,457,157 | $21,541,496 | $23,500,000 | +$1,958,504 |
| Unobligated balance | 121,393 | | | |
| Transferred to General Services Administration | | 25,254 | | −25,254 |
| Appropriation | 20,578,550 | 21,566,750 | 23,500,000 | +1,933,250 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 12,562,818 | 13,750,000 | 14,644,000 | +894,000 |
| 12 Personnel benefits | 828,803 | 796,000 | 867,000 | +71,000 |
| 21 Travel and transportation of persons | 180,621 | 188,000 | 200,000 | +12,000 |
| 22 Transportation of things | 93,689 | 95,000 | 96,000 | +1,000 |
| 23 Rent, communications, and utilities | 761,809 | 800,000 | 1,050,000 | +250,000 |
| 24 Printing and reproduction | 11,666 | 12,000 | 13,000 | +1,000 |
| 25 Other services | 1,279,010 | 1,300,496 | 1,765,000 | +464,504 |
| 26 Supplies and materials | 3,021,502 | 3,000,000 | 3,175,000 | +175,000 |
| 31 Equipment | 1,676,930 | 1,600,000 | 1,690,000 | +90,000 |
| 32 Lands and structures | 11,969 | | | |
| 42 Insurance claims and indemnities | 28,340 | | | |
| Total obligations | 20,457,157 | 21,541,496 | 23,500,000 | +1,958,504 |

MAINTENANCE AND REHABILITATION PROGRAM

Chairman HAYDEN. The committee will be glad to receive whatever comments you have with regard to this activity.

Mr. MONTGOMERY. Yes, sir; Mr. Chairman. It is under this appropriation item that we maintain all of the physical facilities in the parks. We maintain the roads, trails, buildings, utility systems, sanitation systems, etc. We also operate the buildings and utilities and the sanitation systems with these funds. This fund requirement increases from year to year as public use of the parks increases and as we provide new facilities that have to be operated and maintained. We have been requesting increases in this appropriation item over the years, particulary since the commencement of Mission 66, and this committee has been very generous in granting those increases. We are again requesting similar increases this year for the same purposes as those requested in prior years to meet the increased workload.

U.S. 20 AND U.S. 287 IN YELLOWSTONE NATIONAL PARK

Mr. MCGEE. A great deal of interest has been shown in the revival of the proposal to maintain U.S. Highway 20 in Yellowstone Park on a year-round basis. Many people are also interested in keeping U.S. Highway 287 through the Grand Teton National Park and the south entrance of Yellowstone Park connecting U.S. 287 and Montana State Highway 287 open on a year-round basis.

As you know, I recently introduced Senate Resolution 248 which calls upon the Senate Interior and Insular Affairs Committee to study the desirability of keeping these roads open all year. Each year finds more people traveling during the winter months and it is good sense to provide these people with the best possible look at our scenic attractions. It is also good sense to do everything possible to put our western tourist industry on a year-round basis.

Would you include in the record your estimates of what it would cost—additionally—to maintain these park roads all year around?

I understand that improvement of some of the roads would be required in addition to winterizing some facilities. But it would be helpful to have a breakdown of these costs at this time.

Mr. HARTZOG. Thank you, Senator, I appreciate the opportunity to explain the situation at this time.

During the past 15 years we have had two factual engineering surveys of the problems surrounding winter use and travel within the park. Both survey groups included professionally competent individuals having experience with the Bureau of Public Roads and State highway departments as well as National Park Service personnel.

Our latest study was made by the Snow Survey Committee in May 1958. The committee estimated the cost of snow removal and protection operations required to keep Yellowstone National Park roads and entrances (excluding the northeast approach) open on a year-round basis to be $380,000. Furthermore the Committee recommended that we add the indirect costs accruing in capital investments, in additional equipment, improvement in road standards, employee housing and servicing that this winter use would require. Costs which would be incurred by park concessionaires (private capital) to provide services—food, housing, service stations—which would be a necessity, and would be added to the total.

We have not updated our studies made 6 years ago; hence we are not in a position to provide meaningful estimates at this time.

### CONSTRUCTION APPROPRIATION

Chairman HAYDEN. For construction in fiscal year 1965 the National Park Service requests an appropriation of $25,406,000, the justifications for which will be placed in the record. This amount does not include any request for acquisition of lands inasmuch as it is expected that the estimate for that purpose will be included in the request for appropriations to the proposed land and water conservation fund, the authorizing legislation for which is now pending in Congress. With allowances made for land acquisition funds, the 1965 request is $1,991,000 less than the appropriation made in 1964.

(The justification referred to follows:)

### CONSTRUCTION

#### HIGHLIGHT STATEMENT

*Broad purpose and long-range objective of program*

This program provides for the construction of buildings, utilities, and other facilities in the parks and the acquisition of water rights to serve the parks. The objective of the program is to equip adequately the areas administered with structures and facilities needed for the safety and enjoyment of park visitors and for efficient administration, maintenance, and conservation, and to acquire and establish such water rights as are needed to meet visitor and park operating requirements. An objective of Mission 66 is to prosecute these programs on the basis of providing adequate structures, facilities, and water rights for the proper administration, maintenance, and conservation of the parks, and to meet the needs of more than 108 million visitors by 1966, the last year of the 10-year period. The Service's land acquisition program, heretofore included in this appropriation item, has been withdrawn and is projected in the budget as a 1965 fiscal year supplemental fund requirement to be appropriated from the proposed land and water conservation fund for which authorizing legislation is pending in the Congress.

*Accomplishments during the past year*

During 1963, nearly $27 million was obligated for the construction of camping and picnicking facilities, public service and administrative units, utilities, employee housing, and miscellaneous items. Among accomplishments during 1963 were the completion of 6 new visitor centers with 16 others under contract at the close of the year; the provision of 3,700 new campsites; the provision of 84 additional comfort stations; the completion of 196 utility systems, including additions to existing systems; the completion of 80 housing units for permanent and seasonal employees; and the completion of 9 new campfire circles or amphitheaters.

In addition, about $6,173,000 of appropriated and $191,000 of donated funds were obligated for land acquisition. Some 53,900 acres of lands were acquired by purchase, donation, and exchange (exclusive of boundary adjustments) for addition to 45 areas of the national park system. About $306,000 of appropriated funds were obligated for water rights acquisition functions carried on in 75 parks with major activities in 17. Accomplishments included drilling and testing of 66 wells, 45 of which are successful production wells, installation and operation of about 75 water and tidal measuring gages, receipt of 11 water right licenses, and extensive surveys and analyses of water resources and water use in several parks.

*Objective and program for budget year*

The 1965 budget provides for constructing facilities for park purposes and visitor use and the acquisition and establishment of water rights which are of the highest priority throughout the Service. The program for the budget year totals $24,926,000 for the construction of 425 projects affecting 107 parks located in 36 States, the territories, and the District of Columbia; and $480,000 for acquisition of water rights.

As is indicated above, the program requirement for acquisition of lands for fiscal year 1965 is not included in this estimate, but is projected in the budget as a supplemental estimate of the Bureau of Outdoor Recreation to be appropriated from the proposed land and water conservation fund.

*Construction*

| | |
|---|---|
| Appropriation 1964 | $32, 697, 000 |
| Unobligated balance from prior years | 22, 756, 664 |
| Total available for obligation | 55, 453, 664 |
| Decreases: | |
| Buildings, utilities, and other facilities | 35, 337, 438 |
| Acquisition of lands and water rights | 18, 941, 232 |
| Executive Mansion and Grounds | 194, 161 |
| Parkways | 3, 974 |
| Roads and trails | 976, 859 |
| Subtotal | 55, 453, 664 |
| Increases: | |
| Buildings, utilities, and other facilities | 24, 926, 000 |
| Acquisition of lands and water rights | 480, 000 |
| Total available for obligation | 25, 406, 000 |
| Budget estimate, 1965 | 25, 406, 000 |

*Analysis by activities*

| Activity | Amount available, 1964 | Estimate, 1965 | Total available, 1965, compared to total available, 1964 |
|---|---|---|---|
| 1. Buildings, utilities, and other facilities | $35, 337, 438 | $24, 926, 000 | −$10, 411, 438 |
| 2. Acquisition of lands and water rights | 18, 941, 232 | 480, 000 | −18, 461, 232 |
| 3. Executive Mansion and grounds | 194, 161 | | −194, 161 |
| 4. Parkways | 3, 974 | | −3, 974 |
| 5. Roads and trails | 976, 859 | | −976, 859 |
| Total | 55, 453, 664 | 25, 406, 000 | −30, 047, 664 |

*1. Buildings, utilities, and other facilities*

The estimate of $24,926,000 is a decrease of $1,606,000 under 1964.

*Need for funds.*—1965 will be the ninth year of Mission 66. Execution of the program provided for in the estimate will be another step forward in achieving the objective of completing sufficient developments to accommodate visitors to the parks as contemplated in Mission 66. The estimate again provides for important developments in areas commemorating the historic events of the Civil War in preparation for their centennial observances, and for continuing work in the Independence National Historial Park, Pa. It also includes a substantial amount to commence vital replacement and expansion of the water supply and sewer systems at Grand Canyon National Park, Ariz. The numbers of visitors to the parks are continuing at a very high level, with increases expected each succeeding year of the foreseeable future. Accommodations and services for these people are a prerequisite to preserving the parks for future generations. The types of facilities proposed for construction within the amount of the estimate for this activity are as follows:

| | |
|---|---|
| Camping and picnicking facilities | $2, 202, 500 |
| Public service and administrative units | 8, 971, 000 |
| Utilities | 8, 889, 400 |
| Employee housing | 2, 266, 300 |
| Miscellaneous | 2, 596, 800 |
| Total | 24, 926, 000 |

By the end of 1964, it is expected that the Service will have increased the number of camping spaces to 26,600. The Mission 66 goal is 30,000 camping spaces, but if the campground use trend continues to increase, this goal must also be increased. The amount of $2,202,500 programed for camping and picnicking facilities under this activity is in addition to the $1,824,600 programed for the related roads and trails items under the appropriation "Construction (liquidation of contract authorization)," making a total of $4,027,100 for campgrounds and picnic areas. The estimate includes such items as site development; water, sewer, and power systems; tables; fireplaces; garbage receptacles; comfort stations; shelters, amphitheaters, campfire circles, and camp-tender residences.

The $8,971,000 programed for public service and administrative units will provide facilities which give direct service to the visitor and all units essential to proper administration, such as visitor centers, museums, wayside exhibits, contact stations, comfort stations (except those located in campgrounds), administration buildings, entrance stations, fire lookouts, utility buildings, and observation stations, among other things. Construction of these facilities will increase efficiency in park operations by replacing, enlarging, or modernizing facilities constructed 20 or more years ago, when visitors numbered less than a quarter of what they do today, and by providing new facilities in parks in which there have been no developments.

The $8,889,400 scheduled for utilities is to serve the above-mentioned public service and administrative units and such units currently existing, and will provide the necessary services for new concessioner developments or expansions. Utilities are programed only for those parks where commercial facilities are not available or economically feasible. Included in this item is the amount of $3,870,000 for the first stage of the vitally needed replacement and expansion of water, sewerage, and sewage treatment facilities at both the north and south rim development areas in Grand Canyon National Park. In contravention to recommended public health practices, a dual (potable and reclaimed) water supply has been in use at Grand Canyon Village for many years. At first, the reclaimed water system was constructed because of the high cost of potable water, but more recently, due to increasing demands, the potable water supply at Indian Garden Springs has become increasingly inadequate so that supplementation by the reclaimed water has been a necessity. During three of the past four summer seasons it has been necessary to supplement the supply with water hauled by railroad tank car at a cost of more than $5 per thousand gallons. The Indian Gardens pumping plant has been in service for about 30 years and must be rehabilitated.

The first stage of the project will provide a new source of supply in the form of a cross-canyon line from Roaring Spring to Indian Gardens, and rehabilitation of the Indian Gardens pumping plant and terminal storage with chlorinating facilities at Grand Canyon Village. This supply will eliminate the use of reclaimed water. Subsequent stages, with an estimated additional cost of

$5,834,000, will provide for (1) rehabilitation of sewerage and sewage treatment facilities at Grand Canyon Village; (2) water supply line with distribution system and also sewerage and sewage treatment facilities for Desert View; and (3) rehabilitation and extension of water, sewerage, and sewage treatment facilities at the north rim development.

The $2,266,300 included for employee housing will enable the Service to continue its high priority program of providing satisfactory living quarters for park personnel which has been lagging considerably behind the goal set by the Mission 66 program. The title "Employee housing" refers to facilities for housing permanent and seasonal employees, such as detached residences, duplex residences, apartments, motel-type multiple quarters, dormitories, and bunkhouses. Initially the Mission 66 goal envisioned the provision of 1,000 single-family employee housing units and a total of 400 multiple units over the number existing at the beginning of Mission 66 in the then existing park areas. It was planned to construct 200 houses per year and complete the single-family unit phase by the end of the 1961 fiscal year. Single family units constructed and/or programed for construction through the 1964 fiscal year in parks existing at the commencement of Mission 66 will total 553 or 447 less than the goal of 1,000 units all of which were anticipated to be provided by the end of 1961.

The "Miscellaneous" item of $2,596,800 includes items such as park entrance facilities, fences, signs, seats, memorials, and grading, seeding, and planting for public service and administrative units.

*Plan of work.*—The program contemplates continuing with construction of physical facilities in the parks to meet current administrative and visitor needs and to provide for handling the 108 million anticipated visitors during 1966. For the most part, the plans, estimates, and supervision for the construction work are carried out by professional employees of the Service, although in some cases it is desirable and possible to procure the services by contract with outside professional firms. The major portion of the construction will be performed under contract with some minor projects being accomplished with day-labor forces employed by the Service.

The 1965 program includes projects estimated to cost $100,000 or more, as follows:

NORTHEAST REGION

| | |
|---|---|
| Acadia National Park, Maine: Visitor center, exhibits, and interpretive facilities | $305, 900 |
| Cape Cod National Seashore, Mass.: | |
| Demolition and grounds improvement | 200, 000 |
| Construction and rehabilitation of buildings for administration, information, and employee housing including utilities | 150, 000 |
| Construction of miscellaneous beach facilities | 175, 000 |
| Campground and picnic area development | 125, 000 |
| Fort Necessity National Battlefield, Pa: Visitor center and exhibits | 183, 600 |
| Harpers Ferry National Historical Park, W. Va.: Alteration and rehabilitation of Storer College and grounds | 100, 000 |
| Independence National Historical Park, Pa.: | |
| Rehabilitation of old city hall including portion of historic furnishings | 250, 000 |
| Landscape construction, area A, center section, south portion | 138, 300 |
| Landscape construction, second bank of the United States | 184, 300 |
| Rehabilitation of second bank of the United States | 176, 900 |
| Lincoln Boyhood National Memorial, Ind.: Visitor center, exhibits, furnishings, and audiovisual facilities | 256, 400 |

SOUTHEAST REGION

| | |
|---|---|
| Booker T. Washington National Monument, Va.: Visitor center, furnishings, exhibits, and audiovisual facilities | 100, 000 |
| Cape Hatteras National Seashore, N.C.: | |
| Administrative headquarters building | 241, 000 |
| Beach erosion control and stabilization | 500, 000 |

MIDWEST REGION

| | |
|---|---|
| Big Hole National Battlefield, Mont.: Utility system | $161,900 |
| Glacier National Park, Mont.: Visitor center including audiovisual | 257,400 |
| Grand Teton National Park, Wyo.: Water supply, south campground | 107,100 |
| Rocky Mountain National Park, Colo.: Visitor center and administration building, including fallout shelter | 506,700 |
| Wind Cave National Park, S. Dak.: Employee apartments, 12 units | 133,100 |
| Yellowstone National Park, Wyo.: | |
| Boat docks and miscellaneous related facilities | 350,000 |
| Employee apartments, 12 units | 141,000 |
| Employee residences (5) Mammoth | 105,000 |

SOUTHWEST REGION

| | |
|---|---|
| Big Bend National Park, Tex.: Castolon water supply, storage, and distribution system | 102,400 |
| Fort Davis National Historic Site, Tex.: Rehabilitation, stabilization of historic structures | 162,600 |
| Gila Cliff Dwellings National Monument, N. Mex.: Headquarters area, utilities | 103,900 |
| Grand Canyon National Park, Ariz.: | |
| Supplemental water supply and rehabilitation of sewer system | 3,870,000 |
| Employee residences (6) | 102,300 |
| Lake Mead National Recreation Area, Nev.: Visitor center; exhibits, audiovisual installation, furnishings, etc | 227,200 |
| Mesa Verde National Park, Colo.: Water supply and distribution lines and 300,000-gallon storage reservoir | 411,700 |
| Zion National Park, Utah: Water and sewer extensions, south campground | 160,200 |

WESTERN REGION

| | |
|---|---|
| Glacier Bay National Monument, Alaska: | |
| Lodge building | 447,800 |
| Cruise (50 passenger) | 176,500 |
| Water system | 240,000 |
| Mount Ranier National Park, Wash.: | |
| Water system (headquarters) | 225,000 |
| Sewer system (headquarters) | 133,000 |
| Day-use building (Paradise) | 1,020,000 |
| Water system (Paradise) | 170,000 |
| Sequoia and Kings Canyon National Parks, Calif.: | |
| Comfort stations (11) | 121,000 |
| Utilities | 180,000 |
| Replace radio system | 175,200 |
| Ash Mountain, employee residences (8) | 160,000 |
| Sitka National Monument, Alaska: Visitor center including arts and crafts center | 124,500 |
| Yosemite National Park, Calif.: Reconstruct sewer system (Valley) | 300,000 |

NATIONAL CAPITAL REGION

| | |
|---|---|
| District of Columbia: | |
| System general: | |
| Submaintenance unit | 250,000 |
| Improvements to small parks and reservations | 239,900 |
| West Potomac Park: | |
| Correction of settlement and structural repairs (Jefferson Memorial) | 120,000 |
| Floodlighting of memorial | 132,600 |
| Virginia: | |
| George Washington Memorial Parkway: Expandable visitor contact station including police facilities (Great Falls) | 115,000 |

*2. Acquisition of lands and water rights*

| Subactivity | Amount available, 1964 | Estimate, 1965 | Total available, 1965, compared to total available, 1964 |
|---|---|---|---|
| (*a*) Acquisition of lands | $18,334,367 | | −$18,334,367 |
| (*b*) Acquisition of water rights | 606,865 | $480,000 | −126,865 |
| Total | 18,941,232 | 480,000 | −18,461,232 |

(*a*) *Acquisition of lands*

The fund requirement for fiscal year 1965 is not included in this estimate; it is projected in the budget as a proposed supplemental estimate of the Bureau of Outdoor Recreation to be appropriated from the proposed land and water conservation fund.

(*b*) *Acquisition of water rights*

The estimate of $480,000 is an increase of $115,000 over the amount of $365,000 appropriated for 1964, but a decrease of $126,865 under the amount available for that year due to carryover balances. The increase is needed to permit the acceleration of this program to bring it more in line with requirements resulting from increased visitor use, additional developments, and the establishment of new areas.

*Need for funds.*—More than 1,500 water systems in the parks administered are being supplemented or enlarged under the Mission 66 development program to provide more water for which water rights must be acquired or established. Increasing numbers of the Eastern States are adopting regulatory or appropriative water laws which will not conflict with the basic riparian doctrines. These laws and related regulations are particularly applicable to the use of underground water and the drilling, development, and use of wells. As a result, the Service must establish increasing numbers of State permits and appropriative water rights for increasing water use from systems which have formerly been operated under the riparian water laws.

With the increased public use of the parks, more water must be obtained than is available from surface water sources. This can only be accomplished by preliminary geological investigations and subsequent exploratory test well drilling. The increasing need for such wells has been brought about by the increase in prior appropriations of the national water resources in many areas where the parks are located. Florida and Mississippi, among other States, have adopted laws which define riparian rights as those to the average 5-year minimum surface flow or ground water level during the past 20 or more years. These minimums now have to be estimated and revised as more data are obtained. One of the most vital projects involves the acquisition of an assured right to sufficient continued natural flow of water in Everglades National Park from the tributary drainage of southern Florida. The normal southward pattern of flow into the park has been radically reduced as a result of the Corps of Engineers construction of levees and canals north of the park as a part of the central and southern Florida flood control project. Sufficient flow from the project area is essential to the preservation of the ecology for which the park was established. Florida water laws require such water rights to be obtained through allocation by mutual agreement of the ultimate water users, including the United States and the Central and Southern Florida Flood Control District. The Chief of Engineers was directed, by Senate resolution of May 4, 1962, to review and revise the basic flood control plan, incorporated in House Document 643, 80th Congress, 2d session, with a view to determining whether the existing project should be modified in order to insure the supply, distribution, and conservation of water for or in the park. This Service must have sufficient funds for its required participation with the Corps of Engineers to accomplish these objectives. In many of the other Eastern States, it is necessary to drill and pump test several wells to define the extent of small ground water basins and determine the safe withdrawals which will not affect the yield of other wells deriving water from the same sources.

The estimate of $480,000 is needed to finance a more realistic program to carry out surveys to obtain needed data which are not provided in plans of existing water systems; preparation of maps to support applications for the appropriation

of water in compliance with State water laws; purchase of water rights; drilling and observation of necessary test wells; and for preparation and filing of applications with supporting maps for new systems being constructed under the Service's development program.

*Plan of work.*—A large portion of the studies, supervision, and analysis of ground water is accomplished by the U.S. Geological Survey on a reimbursable basis, particularly with respect to geological investigations and exploratory test well drilling. Most test wells are drilled under contracts with private firms. Temporary survey crews are employed by the Service in gathering data on existing water systems and for mapping in support of applications. The acquisition phases of the program are performed by professional employees of the Service.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | 33,891,737 | 55,453,664 | 25,406,000 | −30,047,664 |
| Unobligated balance brought forward | −10,872,901 | −22,756,664 | | +22,756,664 |
| Unobligated balance carried forward | 22,756,664 | | | |
| Appropriation | 45,775,500 | 32,697,000 | 25,406,000 | −7,291,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 5,436,483 | 5,780,000 | 4,726,000 | −1,054,000 |
| 12 Personnel benefits | 330,769 | 328,000 | 267,000 | −61,000 |
| 21 Travel and transportation of persons | 362,422 | 350,000 | 335,000 | −15,000 |
| 22 Transportation of things | 71,127 | 85,000 | 70,000 | −15,000 |
| 23 Rent, communications, and utilities | 105,362 | 108,000 | 100,000 | −8,000 |
| 24 Printing and reproduction | 64,036 | 64,000 | 60,000 | −4,000 |
| 25 Other services | 2,377,497 | 2,900,000 | 2,000,000 | −900,000 |
| 26 Supplies and materials | 913,837 | 1,000,000 | 750,000 | −250,000 |
| 31 Equipment | 851,600 | 900,000 | 700,000 | −200,000 |
| 32 Lands and structures | 23,056,726 | 43,935,414 | 16,398,000 | −27,537,414 |
| 41 Grants, subsidies, and contributions | 321,750 | 3,250 | | −3,250 |
| 42 Insurance claims and indemnities | 128 | | | |
| Total obligations | 33,891,737 | 55,453,664 | 25,406,000 | −30,047,664 |

CONSTRUCTION IN CIVIL WAR AREAS

Chairman HAYDEN. In the outline of your need for funds you indicate that your request will provide for commemorating historic events of the Civil War in preparation for their centennial observances. Would you please indicate to the committee just what construction you will accomplish for this purpose?

Mr. MONTGOMERY. Mr. Chairman, I am embarrassed to tell you that that statement in our justification is in error. We do not have projects in the construction program to commemorate the Civil War observances. Most of those dates have already passed. We do have projects in the construction program to develop the Civil War areas in the manner in which we are developing other areas, to provide facilities such as roads, trails, utility systems, employee quarters, and that type of thing. But they are not for meeting requirements for observances as has been the case for the past several years.

RESTORATION OF FORD'S THEATRE

Chairman HAYDEN. In last year's budget submission there was an item of $2,073,600 for restoration of Ford's Theatre. I fail to find that item included in this year's budget. Would you care to comment on the reason for this?

Mr. HARTZOG. Sir, it just is not in the budget.

Senator BIBLE. Did you ask for it?

Mr. HARTZOG. Yes, sir; we asked the Bureau of the Budget.

Senator BIBLE. It was lost along the way.

Mr. HARTZOG. Yes, sir.

Senator MUNDT. Do you think Senator Young is going to let you get by with that?

Mr. HARTZOG. Sir, as I understand the history of this item and I looked into this when the budget was going through, we had the item in last year's budget and the Congress took it out. We promised then that we would reinsert it in our program which, as Senator Bible asked me, we did. It is now not in the budget.

Senator MUNDT. I believe this committee approved it and the House took it out, is that not right?

Mr. HARTZOG. I believe that is correct.

### PROPOSED LAND ACQUISITION PROGRAM FOR 1965

Chairman HAYDEN. Although there is, of course, no budget submission for acquisition of lands, I wonder if you would supply for the record an estimate of how much you believe will be included for the National Park Service in the supplemental estimate which will be submitted for the Bureau of Outdoor Recreation to be appropriated from the proposed land and water conservation fund? Please include in your submission an indication of where the lands are located which you will wish to purchase.

Mr. HARTZOG. We will be pleased to do that, sir.

(The information referred to follows:)

*Proposed land acquisition program, 1965 fiscal year*

| *Area* | *Amount* |
|---|---|
| Cape Cod National Seashore, Mass | $3, 000, 000 |
| Padre Island National Seashore, Tex | 3, 500, 000 |
| National Capital parks (Piscataway), Md | 544, 493 |
| Inholdings: | |
| Badlands National Monument, S. Dak | 46, 000 |
| Blue Ridge Parkway, Va. and NC | 15, 000 |
| Cape Hatteras National Seashore, N.C | 162, 000 |
| Capitol Reef National Monument, Utah | 45, 000 |
| Castillo de San Marcos National Monument, Fla | 10, 000 |
| Chalmette National Historical Park, La | 80, 000 |
| Chiricahua National Monument, Ariz | 95, 000 |
| Colonial National Historical Park, Va | 100, 000 |
| Devils Tower National Monument, Wyo | 40, 000 |
| Dinosaur National Monument, Utah and Colo | 75, 000 |
| Everglades National Park, Fla | 500, 000 |
| Fort Laramie National Historic Site, Wyo | 50, 000 |
| Fort Necessity National Battlefield, Pa | 61, 500 |
| Glacier National Park, Mont | 120, 700 |
| Great Sand Dunes National Monument, Colo | 43, 000 |
| Great Smoky Mountains National Park, Tenn. and N.C | 200, 000 |
| Kings Canyon National Park, Calif | 12, 000 |
| Mesa Verde National Park, Colo | 125, 000 |
| Natchez Trace Parkway, Ala., Miss., and Tenn | 4, 000 |
| Olympic National Park, Wash | 679, 000 |
| Organ Pipe Cactus National Monument, Ariz | 72, 000 |
| Rocky Mountain National Park, Colo | 131, 000 |
| Scotts Bluff National Monument, Nebr | 182, 370 |
| Sequoia National Park, Calif | 50, 000 |
| Theodore Roosevelt National Memorial Park, N. Dak | 85, 000 |
| Yosemite National Park, Calif | 192, 000 |
| Zion National Park, Utah | 180, 000 |
| Total, inholdings | 3, 355, 507 |
| Total | 10, 400, 000 |

### Status of Lands in Civil War Areas

Chairman Hayden. With regard to acquisition of lands for Civil War areas, will you submit for the record a table showing the acreage authorized. The acres now in Federal ownership, the amount appropriated for land acquisition to date, the amount obligated for land acquisition to date, the amount to be requested for 1965 land acquisitions, and the amount needed to complete the planned land acquisition program?

Mr. Hartzog. We will be pleased to.

(The information referred to follows:)

*Statement showing data on acreages and costs involving Civil War areas*

| Area | Acreage authorized | Acres in Federal ownership Jan. 1, 1964 | Total appropriation for land acquisition, 1957-64 | Amount obligated for land acquisition, 1957 to date | Additional amount needed to complete land acquisition program |
|---|---|---|---|---|---|
| Abraham Lincoln Birthplace National Historic Site | 116.50 | 116.50 | | | |
| Andrew Johnson National Monument | 16.68 | 16.33 | | [1] $49,150 | |
| Antietam National Battlefield Site [2] | 783.63 | 355.32 | $455,000 | 233,975 | $350,000 |
| Appomattox Court House National Historical Park | 972.01 | 937.34 | | | 70,000 |
| Brices Cross Roads National Battlefield Site | 1.00 | 1.00 | | | |
| Chickamauga-Chattanooga National Military Park | 8,190.39 | 8,189.64 | | | 2,000 |
| Fort Donelson National Military Park | 600.00 | 196.24 | 225,000 | 225,000 | [3] 120,000 |
| Fort Jefferson National Monument | 47,125.00 | 47,125.00 | | | |
| Fort Pulaski National Monument | 5,516.62 | 5,364.12 | | | 2,000 |
| Fort Sumter National Monument | 2.40 | 2.40 | | | |
| Fredericksburg-Spotsylvania National Military Park | 3,672.15 | 2,527.13 | 164,100 | 4,300 | 850,000 |
| General Grant National Memorial | .76 | .76 | | | |
| Gettysburg National Military Park | 3,408.64 | 2,868.40 | 584,740 | 351,106 | 3,000,000 |
| Harpers Ferry National Historical Park | 1,500.00 | 469.23 | 300,000 | 240,872 | |
| Kennesaw Mountain National Battlefield Park | 3,682.62 | 2,882.62 | | | [4] 250,000 |
| Lincoln Boyhood National Memorial | 200.00 | 114.49 | 75,000 | 4,631 | |
| Manassas National Battlefield Park | 3,108.87 | 2,242.31 | 713,450 | 657,196 | 500,000 |
| Pea Ridge National Military Park | 4,283.40 | 4,217.75 | | | 10,000 |
| Petersburg National Battlefield and Poplar Grove National Cemetery | 2,739.72 | 1,512.65 | | | 150,000 |
| Richmond National Battlefield Park | 756.49 | 744.96 | | | 10,000 |
| Shiloh National Military Park | 3,564.46 | 3,557.97 | 29,500 | 34,260 | |
| Stones River National Battlefield | 330.86 | 323.86 | 6,200 | 2,100 | |
| Tupelo National Battlefield | 1.50 | 1.00 | | | 1,000 |
| Vicksburg National Military Park | 1,648.34 | 1,377.93 | | | 600,000 |
| Wilson's Creek Battlefield National Park | 1,730.00 | | | | 20,000 |
| Total | 93,952.04 | 85,144.95 | 2,552,990 | 1,802,590 | 5,935,000 |

[1] The cost of acquiring lands at Andrew Johnson National Monument was financed from general land acquisition funds.

[2] The Service is authorized to purchase scenic easements on not to exceed 1,116.37 acres of additional lands.

[3] The appropriation authorization will have to be increased by $119,000 before the full amount of funds included above can be requested.

[4] The appropriation authorization will have to be increased by $247,710 before the full amount of funds included above can be requested.

Note.—No land acquisition money is being requested in the 1965 fiscal year budget.

### Facilities at Rainbow Bridge National Monument

Chairman Hayden. What is the status of the construction of facilities for access to the Rainbow Natural Bridge?

Mr. Stratton. Mr. Chairman, most of the contracts have been let. We must still do some trail work and provide some picnic facilities, but with the exception of the walks, docks, and platforms to serve the floating facilities, the projects are essentially completed.

I checked yesterday and found that we are now waiting for the water in the lake to rise so that these facilities can be put into place. At the present time the elevation is 3,414 feet and it will have to rise to about 3,500 feet in order that we may put the facilities into operation.

Chairman HAYDEN. That depends on how much snow is on the watershed?

Mr. STRATTON. That is correct. The facilities are ready to go into place but due to the water situation it is quite doubtful that they will be available to the visitors this coming summer.

### THEODORE ROOSEVELT NATIONAL MEMORIAL

Senator MUNDT. Mr. Chairman, I have some questions here for Senator Young.

How much would it cost the National Park Service to acquire the Noyes property?

Mr. HARTZOG. We have Mr. Lee, our Chief of Lands here, if I may ask him to supply that detail.

Mr. LEE. We have had negotiations with Mr. Noyes in an effort to purchase the property. I regret to say that it has not been possible for our people to get together with the Noyes owners for the reason that our appraisals do not justify the price being asked for the property. I may say for the record that Mr. Noyes also is asking for a sum of money in excess of our appraisal tax free, which presents another complication to us.

Senator MUNDT. As a matter of policy have you run into that kind of situation when it gets completely impossible to solve by voluntary arrangements that you ever resort to condemnation?

Mr. LEE. Yes; we do on occasion. I would say with some pride that in excess of 80 percent of the property that we have acquired in the park system has been accomplished by voluntary purchase.

### AVAILABILITY OF FUNDS FOR ACQUISITION

Senator MUNDT. Are there funds for acquisition in this budget in the event there is a falling out of this resistance?

Mr. LEE. We plan to use available land acquisition funds for this acquisition. In fact, we are planning on moving forward on that before the 1965 budget is approved.

Senator MUNDT. How much is the acquisition road cost that you propose to build at Theodore Roosevelt National Memorial?

Mr. HARTZOG. We believe that a price in the neighborhood of $75,000 for the Noyes property would be reasonable. If you would like some background on this, sir, the property is located at an interchange of the interstate highway which would give visitors access to this area. The property we are talking about is property that lies inside the area which we would acquire for a public overlook in connection with this Interstate System.

### GREEN RIVER COMPLEX

Mr. MCGEE. I am pleased to see that there is a budget request for $65,000 to begin construction of the Park Service complex at Green River, Wyo. As you know, these facilities will serve as a focal point

of visitor contact for the Flaming Gorge Recreation Area presently under construction.

The reservoir began to fill in November 1962 and will reach capacity in July of this year. The boat launching ramps at Buckboard Crossing, Fire Hole Canyon, Brinegar Ranch, and Holmes Ferry are also under construction. The rapid development of the recreation sites will result in heavy visitor flows starting this summer. The Green River complex will be located at the extreme northern end of the recreation area and is strategically located with respect to tourist availability.

Do you expect to complete this project in 1965?

Mr. HARTZOG. Our 1965 program for developments at Flaming Gorge, which is pending in the public works appropriation bill, includes $65,100 for the district ranger-visitor contact station you mention. If funds are appropriated we see no reason why this work cannot be accomplished during the 1965 fiscal year. We have given it high priority, as the visitors will be stopping there for information as you have indicated.

Mr. MCGEE. According to my information, we need not only the visitor contact station, but a utility building, two residences, a water and sewer system, and roads and trails. Although we are getting started on it this year, it is a small start at best and many people in that area of Wyoming are concerned lest the recreation areas be fully completed and the Park Service complex to service the visitors be incomplete.

Would you include in the record your proposed construction schedule for the entire project?

Mr. HARTZOG. Our long-range schedules show that we plan to continue with other developments at Green River without letup if this meets with the fiscal policies of the administration in effect at the time the budget estimates are considered. The only possible exception to our master planning proposals would be in connection with employee housing. As you know, we do not construct employee housing where rental housing is available. We tentatively plan on constructing the remaining facilities in 1966, or if fiscal policies require, during 1966 and 1967.

### REPROGRAMING FOR PISCATAWAY PARK LAND ACQUISITION

Chairman HAYDEN. There are several requests before the committee for reprograming of construction funds now available.

One of these is your request to reprogram $180,107 to purchase tracts on Mockley Point across the Potomac from Mount Vernon. In fiscal year 1963, Congress appropriated $213,000 for the purchase of 133 acres, the amount estimated as necessary by the National Park Service. Subsequent surveys and appraisals, however, have shown the acreage to be about 97½ and the estimated cost to be $382,200. Your letter will be reproduced in the record.

(The letter referred to follows:)

FEBRUARY 14, 1964.

Hon. CARL HAYDEN,
*Chairman, Committee on Appropriations*
*U.S. Senate, Washington, D.C.*

DEAR MR. CHAIRMAN: The act of Congress approved October 4, 1961 (75 Stat. 780), authorized the acquisition of certain lands in Prince George's and Charles Counties, Md., to preserve the scenic view and principal overview from Mount Vernon.

The Department of the Interior and Related Agencies Appropriation Act, 1963, approved August 9, 1962 (76 Stat. 335), authorized funds for the acquisition of these lands, and Conference Report No. 2049 thereon specified at $213,000 figure for the acquisition of the Henry H. Clagett tract at Mockley Point, situated on the Potomac River opposite Mount Vernon, containing 133 acres.

Efforts to negotiate a mutually satisfactory agreement with the owners for the purchase of the Mockley Point tract within the amount authorized have been unsuccessful. Therefore, condemnation proceedings entitled "*United States of America* v. *97.56 acres of land, more or less, situated in Prince Georges County, State of Maryland, and Henry H. Clagett, et al.* (Civil No. 15010)," were filed on September 19, 1963, in the U.S. District Court for the District of Maryland to acquire the property. Upon survey, it was found that the Clagett lands to be acquired aggregated 97.56 acres instead of 133 acres.

By letter dated January 2 the Department of Justice advised that offers of settlement of $331,500 and $50,700 for tracts 1 and 2, containing 84.184 and 12.7449 acres, respectively, had been secured from the counsel for the owners of Mockley Point. These offers are based on a value of $3,900 per acre. Our appraisals list some comparable sales in excess of that figure.

The Department of Justice advises that the Governmet appraisals and testimony in the event of trial range between $256,380 and $424,092 as to tract 1 and $38,235 and $63,724.50 as to tract 2.

In the foregoing circumstances, it appears that the $213,000 estimate of value of the Clagett tract on Mockley Point has turned out, by the advent of time and growing interest in purchase of Potomac riverfront property, to be too low.

We believe that acceptance of the offers of settlement should be approved, as it appears unlikely that the lands can be acquired for a lower figure. To permit judgment to be entered at the proposed settlement figures, we propose to reprogram other funds in the amount of $180,107. The sum of $10,907 has been expended for necessary appraisals and surveys.

Your early consideration and approval of this reprogaming of land acquisition funds are respectfully requested.

Sincerely yours,

STEWART L. UDALL,
*Secretary of the Interior.*

Chairman HAYDEN. What do you have to tell the committee about this?

Mr. HARTZOG. I brought Mr. Jett to tell you about this.

Mr. JETT. That is correct; I have a statement here on the land situation at Mockley Point if you would like me to submit it for the record.

Chairman HAYDEN. Yes.

(The statement referred to follows:)

STATUS REPORT ON LAND ACQUISITION AND SCENIC EASEMENT PROGRAM FOR PISCATAWAY PARK AUTHORIZED BY PUBLIC LAW 87-362

The act of October 4, 1961, authorized the park along the Potomac River and across from Mount Vernon, which we refer to as Piscataway Park. The act authorized the Secretary of the Interior to acquire in fee or otherwise approximately 1,152 acres of property. The act also authorized the Secretary to accept donations of scenic easements on approximately 2,596 acres of additional park property adjoining the area to be established as a park.

The 1963 fiscal year appropriations bill contained an item of $213,000 specifically designated for the acquisition of Mockley Point, the property of Henry Claggett and his sons. Condemnation proceedings against the Claggett property are underway with the Department of Justice. Of the $213,000, $10,907 has been spent for necessary appraisals and surveys, leaving a balance of $202,093. The Claggett property to be acquired is 97.56 acres. The Department of Justice advises that offers of settlement have been obtained as follows:

| | |
|---|---|
| Tract 1, containing 84.184 acres | $331, 500 |
| Tract 2, containing 12.7449 acres | 50, 700 |
| Total | 382, 200 |

These figures are based on a value of $3,900 per acre. Both Government appraisals list comparable sales in excess of $3,900. Since the offers of settlement are within the Government's appraisal range, it seems logical to accept the offers. This total cost, however, is $180,107 in excess of funds available and, of course, is over the ceiling set by the House Appropriations Committee. If authorized, funds are available for reprograming to accept this offer.

To date, scenic easements have been acquired through donations from 47 property owners conveying 70 tracts of land of which 49 are in Prince Georges County and 21 in Charles County. These easements have been recorded, and they constitute approximately 25 percent of the areas over which scenic easements are desirable. A program is underway to acquire additional scenic easements, and we expect in the next few months to be in a position to record a significant number of additional easements.

The statutory limitation of $937,000 indicated for the acquisition of land in this park to be acquired in fee will be inadequate on the basis of today's cost and recent appraisals based on the Mockley Point property. At the time the legislation was enacted, cost estimates were based on a judgment estimate by knowledgeable people in the land acquisition field. However, since appraisals have been acquired and the figure of at least $3,900 per acre seems to be appropriate and fair, a reevaluation of the remaining land acquisition in fee for the Piscataway Park project would be approximately $2,030,000 for approximately 520 acres of private property.

AGREEMENT ON PURCHASE PRICE

Mr. JETT. It shows that we now have donated to us about 25 percent of the land suggested in the scenic easement area. One of the foundations has turned over 151 acres in fee simple. It is true that at Mockley Point the appraisals on the property amounted to $3,900 an acre, which is more than we had anticipated. The Justice Department did institute condemnation proceedings but now the Justice Department officials have met with the owners and I understand they are agreeable to sell at $3,900 an acre which does put us $180,000 short of what we need to complete this acquisition. We have asked permission of this committee and the House committee to reprogram funds to make it possible to acquire the 97 acres in question.

Chairman HAYDEN. You will take the money from some other source?

Mr. JETT. Yes, sir.

Chairman HAYDEN. From what other source?

Mr. JETT. It will be reprogramed from other land acquisition moneys, I understand.

Mr. LEE. We have several projects which have been authorized in the past and moneys programed for them that have not materialized for one reason or another. We plan to use some of the funds presently available for these items until such time as they can be replaced through the regular budgetary process.

Senator MUNDT. Are you abandoning these projects from which you are taking the money?

Mr. LEE. We will have to replace those funds at a later date out of subsequent appropriations.

Chairman HAYDEN. Without objection, the request is approved.

REPROGRAMING FOR MESA VERDE NATIONAL PARK FACILITIES

Also, you have requested committee approval to reprogram $400,000 of funds for construction of buildings in order to change the location of the visitor use and concession facilities in Mesa Verde National Park in Colorado. These funds will be taken from money provided for four other park service facilities. This request and a supplemental memorandum will be included in the record.

(The information referred to follows:)

JANUARY 31, 1964.

Hon. CARL HAYDEN,
*Chairman, Committee on Appropriations,*
*U.S. Senate, Washington, D.C.*

DEAR MR. CHAIRMAN: During the past several years the National Park Service has undertaken exhaustive studies relating to the future development and public use of Mesa Verde National Park, Colo. Decisions reached recently will result in major changes in existing park operating plans and will call for park developments in new locations.

The focal point of visitor use, including overnight and day use facilities of the concessioner (the Mesa Verde Co.), are all located in a small congested area known as Spruce Tree Point on Chapin Mesa. This dangerously overcrowded area presents safety hazards to the more than 260,000 annual visitors because of precipitous cliffs and unsafe terrain. Also, the irreplaceable ruins which represent the primary park values are subjected to possible damage or loss. As part of the program to relieve congestion and confusion at Chapin Mesa, it is planned to relocate the overnight cabins and related facilities from Spruce Tree Point to Navajo, which is strategically located and conveniently accessible to visitors. This action will require considerable additional investment of private capital on the part of the Mesa Verde Co. In order to discontinue the Spruce Tree Point activities, it will be necessary for the Federal Government to purchase the concession properties and require them to be rebuilt in the new location. The company has agreed to this proposal recently, and it would provide them with part of the necessary capital with which to begin construction activities in the new location. The Service is desirous of accomplishing these development objectives at the earliest practicable date in the interests of public use, and it is hoped that the purchase of the factilities can be consummated soon so that the Mesa Verde Co. can start construction activities during the coming spring and summer.

Although funds for acquiring the concession facilities are not included in the programs of the National Park Service, there are funds which can be applied to the purpose without detriment to their overall programs. It is recommended that $400,000 of funds included in the 1964 fiscal year "Construction" appropriation of the Service be approved for purchasing the Mesa Verde Co. properties as follows:

| | |
|---|---|
| El Morro National Monument, N. Mex.: 3 residences, utility extensions, visitor center, utility building, and seasonal employee quarters | $193,250 |
| Gila cliff dwellings, New Mexico: Visitor center and utilities (portion) | 58,520 |
| Natural Bridges National Monument, Utah: Visitor center, fencing, entrance sign, utilities, and comfort stations | 105,360 |
| Zion National Park, Utah: Water and power systems | 42,870 |
| Grand total | 400,000 |

It is contemplated that the foregoing projects will be reinstated in future year programs, or accomplished with savings accrued on other projects. Therefore, the deferments will be of a temporary nature.

Your approval of the foregoing program adjustments is respectfully recommended. A similar letter is being sent to Hon. Michael J. Kirwan, chairman, Subcommittee on Interior and Related Agencies Appropriations Committee, House of Representatives.

Sincerely yours,

JOHN A. CARVER, Jr.,
*Assistant Secretary of the Interior.*

FEBRUARY 11, 1964.

MESA VERDE NATIONAL PARK, COLO.

By letter of January 31 from Assistant Secretary Carver to Representative Kirwan and Senator Hayden, it was proposed to transfer $400,000 of funds programed during the 1964 fiscal year for buildings and utilities construction, to Mesa Verde National Park for purposes of acquiring the properties of the Mesa Verde Co., a concessioner in that park.

The entire 1964 fiscal year construction programs for El Morro and Gila Cliff Dwellings National Monuments, N. Mex., would be deferred temporarily. All of the program for Natural Bridges National Monument in Utah, except $51,300 for utilities, would be deferred temporarily.

Three projects would remain in the 1964 fiscal year program for Zion National Park, Utah, including $31,300 for boundary fencing on the north and east sides of the park, $8,000 for signs and markers, and $10,200 for fencing in the Hop Valley areas.

None of the projects deferred was included in the 1965 construction program, as the proposal to use the $400,000 for the Mesa Verde project had not yet received the attention and approval of the Appropriations Committees.

The projects temporarily deferred are all needed, and it is planned to proceed with them later in the same manner as if they had not been proposed for temporary deferment. It is proposed that if plans are completed, and other conditions permit, the projects would be placed under contract and financed by deferring other lower priority projects. ("Low priority" as applied to these projects means that unforseen situations stand in the way of their accomplishment as originally scheduled.)

In the case of the El Morro projects, the plans are not completed. At Gila Cliff Dwellings, major changes in master planning are required because an anticipated exchange of lands with the State game and fish commission did not materialize, and the facilities cannot be located as originally proposed. At Natural Bridges, the construction of the visitor center and other facilities was contingent upon completion of an approach road. Unanticipated delay in establishing the approach road has delayed the entire development in this location and bids have just been opened for the approach road construction. At Zion National Park the utilities were intended to serve an expanded development on the east side of the park. The entrance station and one set of quarters in this locality are now served through hauling water and by an electric generator. Utilities should be installed prior to development of other facilities such as additional quarters and a utility building. It is not known in which future year it will be possible to program funds for the expansion of these facilities in this locality.

If the proposed program adjustment is approved, and the projects temporarily deferred are not ready for accomplishment prior to the 1966 fiscal year, funds for these purposes will be scheduled in the 1966 program.

REPROGRAMING, DELAYS, AND ACQUISITION OF FUNDS

Chairman HAYDEN. Please discuss the need for this reprograming and indicate what planned facilities will be delayed at other parks, when they will be constructed, and specifically where you will acquire the funds to do that work.

Mr. STRATTON. Mr. Chairman, during the past several years the National Park Service has undertaken exhaustive studies relating to the future development of Mesa Verde. It is one of the few areas that has not had the touch of development resulting from Mission 66 due to the fact that we were actually not able to reach the full agreement on the development of the park. At the present time accommodations for visitor use, which include overnight accommodations, food facilities, and that sort of thing, are in a congested area known as Spruce Tree Point. Actually, years ago the Park Service felt that at such time as Spruce Tree Point area had a visitation of some 30,000 it would reach its maximum use. Last year visitation was 325,000, or almost 11 times. Therefore, it has become necessary to actually move some of these facilities back from Spruce Tree Point

because they are ruining by overrunning and overuse the Indian ruins that the park was actually set up to view.

Meanwhile, the National Geographic Society has given something in excess of a quarter of a million dollars to the Park Service to do archeological studies and excavation in another area of the park called Weatherill Mesa. This work has now been completed so that we are now in a position to go forward with the development of Mesa Verde National Park.

### Navajo Hill Area Development

One of the problems involved was reaching an agreement with the concessioner who has facilities down on Spruce Tree Point. After considerable negotiations a price was arrived at to pay the concessioner for his holdings, or possessory interest as we call it, and agreed to by both the Government and the concessioner. That is what this $400,000 is to be used for in order that we can begin the development of Mesa Verde in an area called Navajo Hill, where we will not only be able to disperse the visitors but we will be able to protect the ruins of the park.

Now, then, the $400,000 is to be made available by reprograming certain buildings and utilities projects in four areas as related in the Department's letter to the committee. One area is El Morro National Monument, which involves the construction of three residences, utility extensions, and a visitor center. We would propose to go right ahead with the planning on these facilities at El Morro and at such time as the plans are complete, which we believe will be prior to the end of the fiscal year, we would hope to award those contracts.

This could be done with what we term "slippage" from other projects that have been advertised and have been bid in too high or from projects where we would not be able to get the planning completed in time to advertise them this year. In other words, we would just tend to drop the priority down on those projects that cannot be gotten underway. But we do feel on all four of these areas that are involved in this $400,000 reprograming that we can get the work under contract by the end of this fiscal year or shortly thereafter.

Chairman Hayden. If there is no objection we will approve it.

### Reprograming for Fredericksburg Land Acquisition

A third programing request is for use of funds appropriated for acquisition of lands within the Fredericksburg battlefield for purchase of realty within the city limits of Fredericksburg. In fiscal year 1962, the committee approved your request to reprogram $75,000 to purchase 16 tracts within the city limits; and in fiscal year 1963, $85,000 was appropriated, making a total of $160,000. This letter request also will be printed in the record.

(The letter referred to follows:)

December 4, 1963.

Hon. Carl Hayden,
*Chairman, Committee on Appropriations,*
*U.S. Senate, Washington, D.C.*

Dear Mr. Chairman: In carrying out the National Park Service's Civil War area land acquisition program within the four battlefields administered as the Fredericksburg and Spotsylvania County Battlefields Memorial National Military

Park, Va., the approval of your committee is requested to utilize all funds programed for acquisition of lands within the Fredericksburg Battlefield for purchasing the available realty in the portion of the battlefield within the city limits of Fredericksburg.

In our letter of January 26, 1962, apprising you of the National Park Service's land acquisition plans for the battlefield, it was stated that the $75,000 made available in the 1962 Interior Department Appropriation Act would be used in the purchase of the 16 tracts within the city limits. It is now realized that your committee believed that the $75,000 would be sufficient to purchase the 16 tracts. This was not intended. Actually, the 16 tracts have a total estimated value of about $450,000.

We are informed that private development of some of the tracts is imminent and that, in fact, one tract has been sold for apartment house development. Accordingly, we would appreciate modification of your approval to (1) permit the expenditure of the $75,000 for the acquisition of as many as possible of the 16 tracts and (2) grant permission also to expend the $85,000 made available by the 1963 Interior Department Appropriation Act for lands within the city limits of Fredericksburg. The 1963 fiscal year funds were programed for purchase of lands in the Fredericksburg Battlefield—$45,000 within the city limits of Fredericksburg and $40,000 outside these limits.

An identical letter is being sent to the chairman of the House Subcommittee on Appropriations, seeking modification of his earlier approval to permit the National Park Service to expend the available $160,000 within the city limits of Fredericksburg for the purchase of as many of the needed 16 tracts as can be acquired with this sum.

Your favorable consideration of this request will be appreciated.

Sincerely yours,

D. OTIS BEASLEY,
*Assistant Secretary of the Interior.*

### CIVIL WAR AREA LAND ACQUISITION PROGRAM

Chairman HAYDEN. Would you please comment on this, indicating whether $160,000 will be sufficient to purchase all the land? If it is not, will you estimate the additional sum necessary?

Mr. HARTZOG. Mr. Chairman, we have about $600,000 left out of a previous appropriation for purchase of land in Civil War areas. This money has been earmarked for each individual Civil War area. We are going to reexamine the whole Civil War land acquisition program and make up one master priority list for all of the Civil War areas, so that we will get the most pressing properties instead of proceeding area by area as we are now doing.

Chairman HAYDEN. Will you advise the committee whether all of the tracts originally planned for purchase may still reasonably be sought? Are they so developed either residentially or commercially that it is not practical to buy them?

Mr. HARTZOG. We don't think it is practical to proceed with that proposal now. This is why we are going to take a broad look at the whole program of all of this Civil War land acquisition and come back to you with a more complete proposal.

Chairman HAYDEN. I understand that the House committee has declined to approve this request and therefore there is no need for this committee to act.

Mr. HARTZOG. I had not heard that until just now.

### REPROGRAMING FOR MOUNT RAINIER DAY USE FACILITY

Chairman HAYDEN. The committee still has before it a letter from the Secretary asking committee approval of a National Park Service proposal to divert $164,500 programed for residential construction at Ohanapecosh in Mount Rainier National Park to a proposed visitor

center and concession facilities at Paradise. The sum would be added to the amount appropriated for this purpose in last year's act to make available a total of $630,400. The letter will be printed in the record.

(The letter referred to follows:)

OCTOBER 11, 1963.

Hon. CARL HAYDEN,
*Chairman, Committee on Appropriations,*
*U.S. Senate, Washington, D.C.*

DEAR MR. CHAIRMAN: Report No. 181 of the Senate Appropriations Committee on the "Interior Department and Related Agencies Appropriation Bill, 1964" is quoted in part as follows:

"The construction program proposed by the Department includes a visitor center with utilities and concessioner facilities costing $465,900 which is proposed to be located in Sunrise Park in Mount Rainier National Park. Present outmoded accommodations at a location in the park known as Paradise are scheduled to be discontinued and in their place a summer-winter day ski use facility, which will include a visitor center with exhibits, a ski warming room, and concession facilities, will be provided at an estimated cost of $750,000. The committee concurs in a determination which has been made that the budgeted project should be transferred to Paradise; and is agreeable to use of the budgeted funds to construct the first phase of the new facilities needed there. It is expected that the new facility will care for as many as 5,000 visitors per day."

The report of the conferees (No. 551) did not contain any reference to the foregoing.

At one time it was thought that a usable unit of the day use facility could be constructed during the extremely short construction season, and the remainder during the succeeding season. Since then a preliminary architectural and engineering study has been made by a private firm, and their report discloses that this approach would be impracticable and more expensive, and it is proposed to construct the entire building at one time. It is estimated that 10 percent in costs would be saved by entering into a single stage contract. The report discloses also that the facility is estimated to cost in the neighborhood of $1,500,000. Details of the report are being studied to determine if the preliminary estimates might be curtailed. It is planned to include the remainder of the costs in the 1965 fiscal year estimates of the Service. In order to keep additional appropriation requirements to the minimum, it is proposed to apply certain funds included in the 1964 appropriation act to the day use facility, and to accomplish their originally intended purposes with accelerated public works funds.

The Interior Department and Related Agencies Appropriation Act, 1964, as approved, includes funds for projects for Mount Rainier National Park, Wash., as follows:

*Mount Rainier National Park*

| | |
|---|---|
| Ohanapecosh: | |
| Seasonal apartments (12) with utility connections, B–152–4 | $144,500 |
| Residence (3-bedroom), B–137–4 | 20,000 |
| Total | 164,500 |

It is proposed to transfer the $164,500 included in the program for the Ohanapecosh developments to the Paradise location. Based upon anticipated approval of this request, an allocation of $165,000 of accelerated public works funds has been secured to replace the Ohanapecosh facilities. Therefore, determination as to source of financing these projects will await action upon this request for program adjustment.

Your approval of this program adjustment is respectfully requested.

Sincerely yours,

STEWART L. UDALL,
*Secretary of the Interior.*

COST OF FACILITY

Chairman HAYDEN. When Congress acted last year it was expected that the total cost of the facility would be $750,000, and would be constructed in two phases. Now it seems that the Department desires to program the construction as a single unit, and that the total

cost will be $1,500,000. Has the Ohanapecosh construction definitely been provided for by use of accelerated public works funds, as was planned?

Mr. HARTZOG. Mr. Stratton has been following this project.

Mr. STRATTON. Mr. Chairman, you have given me a whole mouthful to answer. Let me start by referring to Report No. 181 of this committee on the appropriation bill for 1964 which indicated that consideration be given to providing facilities at Paradise, the money to come partially from reprograming in another area in Mount Rainier called Sunrise Park. This was in an amount of $465,900. Also in the 1964 program there was an item for Ohanapecosh for seasonal apartments and a residence for a total of approximately $165,000. We were able to secure accelerated public works money for Mount Rainier and it was determined that it could be used for this same purpose.

So we used the APW money for that purpose with the idea of requesting approval for the money that had been put in the regular program to be added to the day use facility at Paradise. Now, sir, at the time we were asked what a facility at Paradise would cost—this is a summer-winter day use facility, it would be a visitor center, comfort station, ski room, a restaurant facility, souvenirs, and so forth—we gave an estimated cost of $750,000. At the time, we said it was hardly more than a "guesstimate" because we were not in a position then to take into consideration things like the heavy snowpack, the short building season, and that sort of thing. In other words, we had no experience with this kind of project. We did know that the cost of some of our visitor centers, including, for example, the one at Gettysburg, was in this category of price and that was the basis of our tentative estimate. Now, subsequent to that, because of the fact that our design people are not too familiar with construction at altitudes such as this one at Paradise and because it involves a number of different kinds of activities, we felt we should get professional help from the outside. We employed an architectural firm from the State of Washington to assist us in this matter.

They have completed a study of this proposed building. They have told us that to build it in two sections would cost at least 10 percent more than if it were included as one building. One of the things that they pointed out which presented problems of design was the fact that the length of the building season at the altitude that prevails at Paradise is very short. Consequently the cost would be extremely high. The average snow pack is something like 30 feet per year and 192 inches of precipitation, so as I say, it presents terrific problems from the standpoint of depth. The isolation factor enters into the picture in that it is approximately 65 miles from Tacoma over winding roads. Also, the contractors must pay premium pay in the Northwest. There is also the fact that a facility of this kind must have its own complete fire protection system. So when you add all those facts and costs together that were brought out by the study that was made by this private architectural firm, the price increased, in fact doubled our original "guesstimate."

THE 1965 APPROPRIATION ESTIMATE

Chairman HAYDEN. The amounts in the fiscal year 1964 appropriation add to $630,400 for construction and utilities, which would leave a balance required of $869,600. Yet in your 1965 estimate you propose an appropriation of $1,020,000. Please explain the additional $150,400.

Mr. STRATTON. May I go back to my first statement about the $465,900 that was in the 1964 program for Ohanapecosh which we propose to use at Paradise. This plus the $1,020,000 that is in the 1965 buildings and utilities and roads and trails programs add up to $1,485,900, or approximately the $1.5 million figure in question. The use of the $165,000 APW money there in 1964 will leave about $150,000 which will help us in meeting some of the other pending reprograming proposals.

Chairman HAYDEN. Under the circumstances I believe the committee would be justified in approving this proposal that you have made.

Mr. STRATTON. We appreciate it, sir.

DEPARTMENTAL POLICY ON REPROGRAMING

Senator MUNDT. Mr. Chairman, I would like to ask a general question on reprograming. It seems to me we are getting an uncommonly large number of reprograming requests. I regret I was not able to be here at the hearing the other day when the Secretary of the Interior appeared before the committee but I would like to raise this question. I don't know whether anybody here is competent to answer it but I would like to get an answer.

Does the Secretary plan to follow the recommendations of this committee or does he just plan to send the requests to us and then act as he sees fit regardless of what action we take? I have in mind the request on the reprograming of funds for the Merrywood estate easements. I would suggest that perhaps the Chairman might want to write him a letter and get it over the Secretary's signature rather than ask any of the gentlemen present to comment on it. I think if we are going to have a deluge of reprograming requests we ought to find out whether we are engaging in fighting windmills or whether this committee is still retaining some responsibility and authority in this area.

Chairman HAYDEN. I will write a letter of that kind if you wish.

Senator MUNDT. Thank you.

ACCELERATED PUBLIC WORKS PROJECTS

Chairman HAYDEN. For the record submit information showing accelerated public works projects constructed in fiscal year 1964. Show this by type, location, and cost. If the cost was not completely Federal, include the name of the contributor and the amount of the contribution.

Mr. HARTZOG. Thank you, sir. We will be happy to.

(The information follows:)

### Accelerated Public Works Program

The public works acceleration program afforded the Service an opportunity to assist in shoring up the economy of depressed areas and at the same time to provide additional new facilities and the improvement and rehabilitation of many existing facilities essential to accommodate the unprecedented visitor use which the national parks are now receiving. During the 1963 and 1964 fiscal years, funds in the total amount of $11,136,000 were allotted to provide these much needed public use and related facilities which were not provided for through regular appropriations. Approximately 1,405 man-years of employment was generated in accomplishing the projects included on the attached lists.

*Accelerated public works program (1964, $3,200,000), National Park Service*

| State and project | Eligible area and county | Eligibility category | Man-years | Cost (thousands) | Work description |
|---|---|---|---|---|---|
| Alabama: Russell Cave National Monument. | Jackson | 5B | 4.0 | $34 | Construct fire trails, roadside cleanup, and reforestation. |
| Arizona: | | | | | |
| Grand Canyon National Park | Coconino | 5B | 4.0 | 34 | Rehabilitation of boundary fencing to prevent overgrazing in forests. |
| Navajo National Monument | Navajo | 5B | 2.5 | 21 | Fire trail, Betatakin Canyon. |
| California: | | | | | |
| Pinnacles National Monument | San Benito | 5B | 2.0 | 20 | Construct and improve Loop Trail. |
| Sequoia and Kings Canyon National Parks. | Visalia, Tulare | LS | 21.0 | 304 | Boundary fencing, drainage improvement, patrol cabin, and hazard tree removal. |
| | do | LS | 15.0 | 200 | Fire lookout tower replacement and tree survey. |
| Whiskeytown Recreation Area | Redding, Shasta | LS | 5.0 | 54 | Reforestation work. |
| Yosemite National Park | Mariposa, Mariposa | LS | 15.0 | 139 | Forest improvement and protection and campground development. |
| | Tuolumne | 5B | 22.0 | 198 | Do. |
| Colorado: Mesa Verde National Park | Cortez, Montezuma | LS | 27.0 | 154 | Fire trails and reforestation. |
| Florida: Everglades National Park | Miami, Dade | LS | 41.0 | 417 | Reconstruct roads to fire tower, wells for fire control, fire lookout tower and utilities, fire cache and equipment storage building, and eradication of exotic trees. |
| Indiana: Lincoln Boyhood National Memorial. | Spencer | 5B | 10.0 | 41 | Boundary marking, and clearing, seeding, and cleanup. |
| Kentucky: | | | | | |
| Cumberland Gap National Historical Park. | Middleboro, Harlan-Bell | 5A | 8.0 | 27 | Fire trail construction and erosion control. |
| | Middleboro, Harlan-Harlan | 5A | 1.0 | 2 | Construct and improve auxiliary fire trail. |
| Mammoth Cave National Park | Edmonson | 5B | 7.0 | 63 | Vista clearing, planting and reforestation, and ground improvements. |
| Maine: Acadia National Park | Hancock | 5B | 9.5 | 41 | Rehabilitate fire roads and trails, fire hazard reduction, boundary marking, and surveying. |
| Maryland: | | | | | |
| Catoctin Mountain Park | Hagerstown, Washington | 5A | 1.0 | 4 | Forest preservation, clearing and site restoration. |
| Chesapeake and Ohio Canal National Monument. | Cumberland, Allegany | 5A | 5.0 | 50 | Forest preservation and protection. |
| | Hagerstown, Washington | 5A | 13.0 | 60 | Protective clearing, clearing of wooded areas along canyon. |
| Michigan: Isle Royale National Park | Keweenaw | 5B | 11.5 | 103 | Fire protection facilities. |
| New Mexico: Bandelier National Monument. | Sandoval | 5B | 19.0 | 89 | Forest disease control, fire hazard reduction, and fire trails. |
| North Carolina: | | | | | |
| Great Smoky Mountains National Park. | Swain | 5B | 5.0 | 20 | Trail improvements and raze old buildings. |
| Blue Ridge Parkway | Alleghany | 5B | 2.0 | 20 | Vista clearing, and soil and moisture conservation. |
| | Watauga | 5B | 24.0 | 121 | Forest protection. |
| | North Wilkesboro, Wilkes | LS | 6.0 | 40 | Do. |

*Accelerated public works program (1964, $3,200,000), National Park Service*—Continued

| State and project | Eligible area and county | Eligibility category | Man-years | Cost (thousands) | Work description |
|---|---|---|---|---|---|
| Pennsylvania: | | | | | |
| Gettysburg National Military Park | Gettysburg, Adams | LS | 12.5 | $63 | Fire hazard reduction, clearing and grubbing historic fields (130 acres). |
| Hopewell Village National Historic Site. | Philadelphia, Chester | LS | 1.0 | 5 | Restore landscape and reduce fire hazard. |
| Tennessee: | | | | | |
| Chickamauga-Chattanooga National Military Park. | Chattanooga, Hamilton | LS | 3.0 | 15 | Rehabilitate trails and vista clearing. |
| Cumberland Gap National Historical Park. | La Follette-Jellico-Tazewell, Claiborne. | 5A | 5.0 | 19 | Fire trail construction and improvements. |
| Great Smoky Mountains National Park. | Sevier | 5B | 8.0 | 29 | Trail and man-way improvements and site restoration. |
| | Cocke | 5B | 4.0 | 15 | Do. |
| Shiloh National Military Park | Hardin | 5B | 7.0 | 41 | Reduce fire hazards, and picnic units and comfort stations. |
| Virginia: | | | | | |
| Cumberland Gap National Historical Park. | Big Stone Gap-Appalachia, Lee. | 5A | 6.0 | 20 | Trail improvements and planting selective cutting. |
| George Washington Birthplace National Monument. | Westmoreland | 5B | 8.0 | 20 | Woodland preservation and protective work, trail improvements, and boundary fencing. |
| Washington: | | | | | |
| Mount Rainier National Park | Centralia, Lewis | 5A | 24.0 | 392 | Ranger station and seasonal employee housing for protection personnel, and rehabilitate structures and campgrounds. |
| Olympic National Park | Shelton, Mason | LS | .6 | 8 | Roadside cleanup. |
| West Virginia: Harpers Ferry National Monument. | Martinsburg, Jefferson | LS | 10.0 | 43 | Trail rehabilitation and fire hazard reduction. |
| Wyoming: Grand Teton National Park | Jackson, Teton | 5A | 25.0 | 171 | General grounds cleanup and grounds improvement. |
| Virgin Islands: Virgin Islands National Park. | Virgin Islands | 5B | 10.0 | 103 | Forest preservation and protection, roads, and trails. |
| Total, National Park Service | | | 404.6 | 3,200 | |

### Point Reyes Land Acquisition

Chairman Hayden. There is also pending in Congress a fiscal year 1964 supplemental budget estimate in the amount of $3,700,000 for land acquisition at the Point Reyes National Seashore, Calif. The proposed language increases the existing $5,300,000 limitation on land acquisition. Included in the estimate is a proposal that an additional $1 million be transferred for this purpose from Minute Man National Historical Park, Mass., and $2,300,000 be transferred from the "Buildings, utilities, and other facilities" activity of this appropriation item. The justification statement will be placed in the record.

(The justification statement follows:)

#### Justification

*Construction, National Park Service*

| | |
|---|---|
| Appropriation to date | [1] $55, 453, 664 |
| Obligations to Dec. 31, 1963 | 23, 071, 055 |
| Expenditures to Dec. 31, 1963 | 28, 858, 251 |
| Budget estimate next fiscal year | 25, 406, 000 |
| Request (to remain available until expended) | 3, 700, 000 |
| Employment: | |
| Average number, current appropriation | 666 |
| Number involved, this estimate | 3 |
| Actual employment, Dec. 31, 1963 | 445 |

[1] Includes a carryover balance of $22,756,664.

#### PURPOSE AND NEED FOR SUPPLEMENTAL FUNDS

This estimate requests an additional appropriation of $3,700,000 to enable the Service to continue its land acquisition program in the newly authorized Point Reyes National Seashore, Calif. It is essential that the program go forward at the rate proposed in the estimate to obviate increases in land values which would result should there be a delay in completing the acquisitions. The estimate also contemplates the transfer to the Point Reyes land acquisition program of $1 million currently available for land acquisition at Minute Man National Historical Park, Mass., and $2,300,000 from the "Buildings, utilities, and other facilities" activity of this appropriation item, making a total supplemental program of $7 million.

#### ACQUISITION OF LANDS AND WATER RIGHTS

*Acquisition of lands, Point Reyes National Seashore, $3,700,000*

This estimate requests an additional appropriation of $3,700,000 and an increase of $6 million in the land acquisition limitation stipulated in the 1964 appropriation act to continue the land acquisition program at Point Reyes National Seashore, Calif.

The Supplemental Appropriation Act 1963, Public Law 88–25, approved May 17, 1963, provided $5 million to commence the Point Reyes land acquisition program. The 1964 Interior Department Appropriation Act, Public Law 88–79, approved July 26, 1963, provided an additional $2 million to continue the program. It is imperative that the remainder of the authorization, $7 million, be made available at the earliest date possible to avoid stalling the land acquisition program. The amounts provided to date are fully obligated or committed, and it is in the public interest to have supplemental funds appropriated to facilitate the going program.

It has been determined that the remaining $7 million of the appropriation authorization for acquisition of lands at Point Reyes National Seashore can be funded without having to propose an appropriation for the entire amount. To supplement the $3,700,000 requested herein, the amount of $3,300,000 would be provided through reprograming. This contemplates the transfer to the Point Reyes land acquisition program of $1 million currently available for land acquisition at Minute Man National Historical Park, Mass., and the transfer of

$2,300,000 from the "Buildings, utilities, and other facilities" activity of this appropriation item. Most of the projects representing the $2,300,000 proposed for transfer are being rescheduled in the 1965 fiscal year program. The postponement of construction projects that would be affected by the transfer until the 1965 fiscal year can be done without serious consequences in carrying out the authorized development program.

The following purchases or commitments to purchase have been made: Heims Ranch purchase contract for 1,115 acres, $850,000; Drakes Beach Estates and Seashore Lands, Ltd., of more than 1,000 acres of subdivided land, $2,050,000; Bear Valley Ranch of 7,714 acres, $5,725,000, of which $1,660,000 is to be paid from funds currently available, with the remaining $4,065,000 payable either in one subsequent payment or two subsequent payments at the option of the Government; and the Palomarin Ranch of about 3,100 acres, $2,028,000, of which $1,028,000 is to be paid from funds currently available, with the remaining $1 million payable from funds appropriated subsequent to the regular 1964 departmental appropriation but prior to September 30, 1964. The sum of $300,000 has been paid into court for the acquisition through judicial action of timber rights on some 3,700 acres of land on which timber cutting had been started. In addition, the United States faces possible liability in an indeterminate amount for the Limantour Spit, the title and the value of which have, as requested by Drakes Beach Estates, Inc., been submitted to the court for determination through the filing of a condemnation action with a declaration of taking. Several additional properties, such as the Lake Ranch of 2,524 acres, more or less; the Stewart Ranch of 543 acres; Bolema Club of 1,104 acres; and some 1,540 acres owned by the Point Reyes Land & Development Co., et al., are being or have been appraised and negotiations are currently underway or will be started shortly. Some additional but smaller parcels, or parts of parcels, needed for immediate development purposes are under negotiation and will probably be purchased. These, too, will be paid for from funds now on hand.

The cost of these additional properties, and the sum needed to complete the Bear Valley Ranch and the Palomarin Ranch purchases will exceed the remaining balance of the $7 million heretofore made available. Notwithstanding the absence of complete appraisal data, it is clearly apparent that the properties mentioned above, plus other acquisitions now being approached, will require, within a short time, more than the remaining $7 million presently authorized to be appropriated. It is apparent, too, that there is no substitute for money in hand, as an inducement to landowners to sign sales contracts. In the circumstances, it is critically important that the additional $7 million authorized be made available immediately so as to permit the land acquisition program to continue to follow the rapid and satisfying course it is now on. It is timely now to seek funds to take advantage of a favorable situation that may not always exist in seashore area. As indicated above, approval of this estimate will exhaust the $14 million authorization for the seashore.

The $3,700,000 requested in this supplemental estimate, together with the $3,300,000 proposed for reprograming, is considered essential to the project at this time. A delay in obtaining the additional sum until action is taken on the next regular appropriation will adversely affect the rate of progress on the going land acquisition program which has gathered real momentum; stagnate the land acquisition force at Point Reyes; arouse criticism by landowners who have been making plans to sell and acquire property elsewhere; and result in higher prices if delays in consummating additional purchases occur. There is also the prime probability that currently threatened development will be pushed in some cases if purchases are not made promptly.

*Program and financing*

[In thousands of dollars]

| | 1964, presently available | 1964, revised estimate | 1964, increase |
|---|---|---|---|
| Program by activities: | | | |
| 1. Buildings, utilities, and other facilities | 29,537 | 27,237 | −2,300 |
| 2. Acquisition of— | | | |
| (a) Lands | 13,381 | 19,381 | 6,000 |
| (b) Water rights | 630 | 630 | |
| 3. Executive Mansion and grounds | 197 | 197 | |
| 4. Parkways | 22 | 22 | |
| 5. Roads and trails | 981 | 981 | |
| 6. Undistributed costs | −286 | −286 | |
| Total program costs, funded | 44,462 | 48,162 | 3,700 |
| Change in selected resources [1] | 10,992 | 10,992 | |
| Total obligations | 55,454 | 59,154 | 3,700 |
| Financing: Unobligated balance brought forward | −22,757 | −22,757 | |
| New obligational authority (appropriation) | 32,697 | 36,397 | 3,700 |

[1] Selected resources as of June 30 are as follows:

| | 1961 | 1962 | 1963 | 1964 |
|---|---|---|---|---|
| Stores | 766 | 754 | 783 | 783 |
| Unpaid undelivered orders | 13,002 | 21,544 | 23,926 | 34,918 |
| Total selected resources | 13,768 | 22,298 | 24,710 | 35,702 |

*Object classification*

[In thousands of dollars]

| | | 1964 Presently available | 1964 Revised estimate | 1964 Increase |
|---|---|---|---|---|
| | NATIONAL PARK SERVICE | | | |
| 11 | Personnel compensation: | | | |
| | Permanent positions | 3,950 | 3,950 | |
| | Positions other than permanent | 1,750 | 1,767 | 17 |
| | Other personnel compensation | 80 | 80 | |
| | Total, personnel compensation | 5,780 | 5,797 | 17 |
| 12 | Personnel benefits | 328 | 329 | 1 |
| 21 | Travel and transportation of persons | 350 | 350 | |
| 22 | Transportation of things | 85 | 86 | 1 |
| 23 | Rent, communications, and utilities | 108 | 113 | 5 |
| 24 | Printing and reproduction | 64 | 65 | 1 |
| 25 | Other services | 2,900 | 3,025 | 125 |
| 26 | Supplies and materials | 1,000 | 1,006 | 6 |
| 31 | Equipment | 900 | 902 | 2 |
| 32 | Lands and structures | 43,935 | 47,477 | 3,542 |
| | Total, National Park Service | 55,450 | 59,150 | 3,700 |
| | ALLOCATION TO FEDERAL AVIATION AGENCY | | | |
| 41 | Grants, subsidies, and contributions | 3 | 3 | |
| | Total obligations | 55,454 | 59,154 | 3,700 |

STATUS OF EXPENDED FUNDS

Chairman HAYDEN. A total of $7 million has already been appropriated for this purpose. Approval of this supplemental estimate will utilize the full amount authorized for land acquisition at Point Reyes. Have you obligated all of the $7 million previously appro-

priated? That is, have you entered into arrangements whereby you must pay out the whole amount?

Mr. HARTZOG. Mr. Chairman, we have either obligated or committed the whole appropriation of $7 million, and we have a statement which we will be pleased to put in the record showing the status of the amounts expended under this initial $7 million. Now, the authorizing legislation for Point Reyes permitted us to negotiate contracts providing for several payments contingent upon annual appropriations of the Congress. With this authority we have negotiated some of these contracts that call for payments in subsequent years. Now more than $5 million is needed to pick up the options under these existing contracts.

I want it to be clear, so that I don't mislead you. These are not obligations but are commitments against this money. In other words, the Government is not bound to accept the options but the owner is bound to.

Chairman HAYDEN. If it is found to be an advantage, you can do it.

STATUS OF LAND ACQUISITION PROGRAM

Mr. HARTZOG. That is correct. This is why we did it, because the value of this land is going up out there at the rate of 10 to 15 percent a year. When we negotiate a contract, we freeze the price on it, then it permits us to pay off without the economic increment that attaches to the property. The other money requested in this $7 million supplemental estimate would enable us to continue the land acquisition program at Point Reyes.

Senator BIBLE. Might I ask a question at that point, Mr. Chairman?

Chairman HAYDEN. Yes.

Senator BIBLE. I handled the Point Reyes bill in the legislative committee. What was the total amount authorized for acquisition of land?

Mr. HARTZOG. $14 million, sir.

Senator BIBLE. How much have you spent to date?

Mr. HARTZOG. There has been $7 million appropriated, which has essentially all been obligated. In other words, not all of it has been expended, but it is committed to be spent. For all practical purposes the $7 million is exhausted.

Senator BIBLE. Will you be able to acquire the balance of the land that you intend acquiring for $7 million?

Mr. HARTZOG. No, sir, we will not.

ESTIMATE OF ACQUISITION COST

Senator BIBLE. What is your revised estimate of acquisition cost?

Mr. HARTZOG. Sir, we don't have a revised estimate for the whole area yet. We are in the process of getting that. Offhand it appears that the $14 million will get about half of it.

Senator BIBLE. Do you mean you underestimated by 50 percent?

Mr. HARTZOG. This arises from a combination of things.

Senator BIBLE. You may submit this for the record. This is one of the problems we constantly get into in the building of parks. They give us an estimate, and we find out about 3 years later that

the estimate is inaccurate. I would like to have a full explanation of it.

Chairman HAYDEN. You may include that in the record.

(The information referred to follows:)

EXPLANATION OF VALUATION OF POINT REYES NATIONAL SEASHORE LANDS

Between the first approach to an estimate of cost of the Point Reyes lands and improvements in 1956 and the enactment of the Point Reyes Act of September 13, 1962 (76 Stat. 538), three main factors have led to an upswing in the original estimate of value. These are (1) the time factor—3 to 4 years; (2) growing interest in development in the Point Reyes area; and (3) preparation of detailed appraisals translating prior estimates into realistic valuation concepts. An explanation follows.

The original 1956 estimate of cost of land for Point Reyes was derived from assessed county valuations. The assessed valuations represented 23 percent of the fair market value in relation to 1956 market levels. The then (1956) proposed area of approximately 35,000 acres was assessed at approximately $1,291,000 for land and approximately $435,000 for improvements. According to Marin County tax assessors, adjustment to market value to reflect current conditions would result in a maximum figure somewhat in excess of $10,300,000. Land in or near the San Francisco Bay area had been reflecting an annual 10-percent general increase during this same period.

While the proposed legislation was being studied and considered, attention was focused on the Point Reyes area. Subdivision interest grew, evidently in the hope that subdivisional values would be augmented if people believed they could purchase a lot and live within a seashore area administered by the Federal Government. In any event, subdivision plans for several new developments were filed with the county supervisors reflecting increased interest in use of parts of Point Reyes for such purpose. Increased prices were being paid in some of these subdivision areas, but the full effect of this could not be gaged accurately by simple estimation while the legislation was pending.

However, in 1961, one or two specific appraisals of individual tracts were made for exchange and other purposes. These pinpointed the substantial rise in value that was taking place in the Point Reyes area and, to some extent, nearby. They reflected that the acreage rate theretofore assigned to the area generally would be too low. The $14 million legislative ceiling applying to the 53,000 acres included in the finally enacted Point Reyes measure reflects to some extent the increased real estate activity in the area, and would, additionally, require several large-scale exchanges of public domain land for privately owned land within the area. The extent to which exchanges can be perfected still continues to be a major factor in determining the ultimate cost of the land for the seashore project. Two large exchanges, involving over $2 million, are in the negotiating state now. More exchanges, it appears, will be open for negotiation soon.

It is, however, clearly evident now that the original acreage estimates were too low and that the $20 million cost estimate mentioned to the Senate Committee on Interior and Insular Affairs by former Director Wirth early in 1961 was sounder. In his appearances before the House Subcommittee on National Parks on August 11, 1961, and February 5, 1962, former Director Wirth again alluded to increasing costs by advising that the total acquisition cost would be more nearly $25 million. This was attributed to land speculation and subdivision activities, property sales, appraisals, and current information. From this it is evident that the original legislative ceiling of $14 million is certain to be too low, unless a large-scale exchange program of an immense size can be consummated.

Automatically, as public use tracts are purchased by the Government in the Point Reyes area, higher values immediately attach to any of the unacquired lands within the pastoral zone that offer reasonable prospects of subdivision development, even though they may not be as ideal for the purpose as is the case with respect to much of the land purchased by the Government for the project. In other words, lands formerly considered inferior for subdivisional purposes are now becoming more valuable for such purposes due to scarcity of lands for subdivision development.

LAND ACQUISITION AT MINUTE MAN

Chairman HAYDEN. What is the unobligated balance of land acquisition funds for the Minute Man National Historical Park?

Mr. HARTZOG. $2,140,000.

Chairman HAYDEN. What effect will the transfer of a million dollars have on the land acquisition there?

Mr. HARTZOG. None, Mr. Chairman. In other words, the program would continue as we are not obligating the money at the rate we thought we would.

Chairman HAYDEN. Do you foresee a later request to reprogram funds to Minute Man?

Mr. HARTZOG. Yes, sir; we would have to ask for it to be replaced.

Senator MUNDT. Is that land going up in price the same way or not?

Mr. HARTZOG. Yes; but not as much, Senator.

Chairman HAYDEN. Not as much as in California?

Mr. HARTZOG. No, sir.

Chairman HAYDEN. Inasmuch as the full amount authorized to be appropriated for Minute Man has been made available, do you have legal authority to ask for more funds for land acquisition there?

Mr. HARTZOG. Sir, we would like to look into this. I have placed this question before our attorneys. If I may, I will place that in the record. This is a matter that is of concern to us, too. We are looking into it.

Chairman HAYDEN. You are going to look into that?

Mr. HARTZOG. Yes, sir; if we may. We will be happy to place it in the record.

Chairman HAYDEN. You can't answer the question as to how you will acquire the necessary funds for Minute Man until later?

REPROGRAMING LAND ACQUISITION FUNDS

Mr. HARTZOG. No, sir. I would rather wait for the opinion which we will include in the record.

(The information referred to follows:)

MEMORANDUM

To: Director, National Park Service.
From: Assistant Solicitor, National Parks.
Subject: Effect of reprograming of land acquisition funds, Minute Man National Historical Park.

The establishment of Minute Man National Historical Park was authorized by the act of September 21, 1959 (73 Stat. 590; 16 U.S.C. 410s (1958 Ed. Supp. IV)). Section 2 of that act provides for the acquisition of lands by donation, with donated funds, or with appropriated funds, and section 6 of the act, which authorizes appropriations for the park of not more than $8 million, provides that "* * * not more than $5,000,000 shall be used for acquisition purposes * * *."

It is my understanding that in connection with the appropriation of funds for fiscal years 1961 through 1964, the detailed estimates contained items for land acquisition for Minute Man in the total sum of $5 million; that of appropriations made during those years that amount was allocated to the park but, of this amount $1 million is proposed to be reprogramed for use in another park. You have asked to be advised if this reprograming would preclude requesting an appropriation of $1 million for Minute Man subsequently in view of the limitation in the authorizing legislation.

The appropriation acts in recent years have carried a lump-sum appropriation for the "* * * acquisition of lands, interest therein, improvements, and related personal property * * *." Funds so appropriated are available, in the absence

of other language in the appropriation act, for allocation with respect to certain areas and for reallocation or reprograming administratively among the various National Park Service areas in accordance with regularly established procedures.

Such reprograming may be legally accomplished without action by the Congress for the reason that budget estimates do not have status of legally fixing the use to which an appropriation shall be put. (See 26 C.G. 545, 547.) Furthermore, the limitation in the Minute Man National Historical Park legislation is on the amount of appropriated funds which "* * * shall be *used* for acquisition purposes * * *." [Italic supplied.]

In my view it is clear that the Congress intended the National Park Service to have authority to use up to $5 million of appropriated funds for the acquisition of lands and interests therein for Minute Man. Accordingly, I am of the opinion that, under the circumstances outlined above, there would be no legal inhibition to requesting an appropriation of funds for land acquisition at the park to replace the funds proposed for reprograming. In addition, I am of the opinion that an item in an appropriation bill including such an amount would not be subject to a point of order.

BERNARD R. MEYER,
*Assistant Solicitor, National Parks.*

(At the direction of the chairman the following letter from Senator Saltonstall is included at this point in the record:)

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
*February 26, 1964.*

Hon. CARL HAYDEN,
*Chairman, Appropriations Committee,*
*Senate Office Building, Washington, D.C.*

MY DEAR MR. CHAIRMAN: It has been brought to my attention that the Department of the Interior, National Park Service, is requesting a reprograming of $1 million currently available for land acquisition at Minute Man National Historical Park, Mass., to purchase land for the Point Reyes National Seashore, Calif.

I am opposed to this reprograming because although Minute Man Park will probably not use the funds in the immediate future, I understand that it might require a new authorization to continue land acquisitions at the Minute Man Park should additional lands become available.

The Cape Cod National Seashore will probably have used up all its land acquisition funds before the end of the fiscal year. In view of this, I do not feel that funds should be transferred to California when they could be put to equally good use in Massachusetts.

Sincerely,

LEVERETT SALTONSTALL, *U.S. Senator.*

REPROGRAMING UNDER BUILDINGS AND UTILITIES CONSTRUCTION PROGRAM

Chairman HAYDEN. What is your present unobligated balance available for "Buildings, utilities, and other activities"?

Mr. HARTZOG. $24,530,655 as of January 31.

Chairman HAYDEN. In what specific areas will buildings and utilities projects amounting to $2,300,000 be deferred?

Can you tell us how much of this amount will come from which park areas?

Mr. HARTZOG. Yes, sir; we have a list of those by projects and by parks and by amounts. We will insert it in the record, if we may.

(The list follows:)

LIST OF 1964 FISCAL YEAR PROJECTS RESCHEDULED IN THE 1965 FISCAL YEAR, BUILDINGS AND UTILITIES CONSTRUCTION PROGRAM

NORTHEAST REGION

| | Amount |
|---|---|
| Cape Cod National Seashore: | |
| Construction of miscellaneous beach facilities (portion) | $60,200 |
| Construction and rehabilitation of buildings for administration, information and employee housing, including utilities (portion) | 31,000 |
| Chesapeake & Ohio Canal National Monument: | |
| Rehabilitation, restoration and stabilization of canal beds and banks | 20,000 |
| Rehabilitation, restoration, and stabilization of revetments and riprap | 10,000 |
| Independence National Historical Park: Rehabilitation of second bank of the United States | 60,400 |
| Harpers Ferry National Historical Park: Alterations and rehabilitation of Storer College and grounds (portion) | 88,600 |
| Minute Man National Historical Park: Rehabilitation and restoration of historic structures (portion) | 26,600 |

SOUTHEAST REGION

| | |
|---|---|
| Arkansas Post National Memorial: | |
| Interpretive signs and markers, M–2 | 2,300 |
| Visitor center, maintenance building, including exhibits, furniture, and connections to utilities, B–2 | 22,000 |
| Blue Ridge Parkway—North Carolina: | |
| Mount Pisgah concession area water system, U–194 | 26,900 |
| Sewerage system | 16,100 |
| Cape Hatteras National Seashore—Cape Point: Audiovisual room and amphitheater, M–31 | 9,000 |
| Castillo de San Marcos National Monument: Gun carriages | 5,700 |
| Everglades National Park—Parachute Key: Install lawn sprinkler system, visitor center, headquarters building area, M–142 | 12,800 |
| Fort Raleigh National Historic Site: | |
| Utility building, B–3–2 | 28,200 |
| Oil and paint building, B–52 | 2,500 |
| Grounds improvements, visitor center, M–4–1 | 8,700 |
| Horseshoe Bend National Military Park: | |
| Procurement and mounting of 2 cannons, M–6 | 4,300 |
| Boat landing (administration use only for small boat) M–14 | 4,800 |
| Vista clearing, M–10 | 9,400 |
| Kennesaw Mountain National Battlefield Park: Employee residences (2) (3-bedroom) including grounds improvement, B–27 | 38,000 |
| Mammoth Cave National Park: Entrance station, Sloans Crossing, B–105–2 | 4,500 |
| Pea Ridge National Military Park: | |
| Restoration of Elkhorn Tavern, 2d stage, B–7 | 35,800 |
| Restoration of grounds and reconstruction of fence, Elkhorn Tavern, M–12 | 5,900 |
| Interpretive shelters, interpretive devices for 6 stops, and 17 signs and markers, M–10–1 | 6,600 |
| Shenandoah National Park—Big Meadows: Planting grounds improvements, selective clearing, visitor center, M–108 | 5,100 |
| Shiloh National Military Park—Utility area: | |
| Shop and firehouse, B–11–5 | 63,300 |
| Extend water system, U–2–3 | 3,200 |
| Extend sewer system, U–13 | 5,100 |
| Fencing, M–24–4 | 4,100 |
| Vicksburg National Military Park: | |
| Restore Shirley House, B–2–3 | 46,100 |
| Equipment storage shelters (2) and paint shop, utility area, B–7–3 | 30,100 |

SOUTHWEST REGION

| | Amount |
|---|---|
| Big Bend National Park—Castolon: | |
| Water supply, storage and distribution system, U–57–1 | $102, 400 |
| Sewage disposal, U–59 | 46, 600 |
| Gila Cliff Dwellings National Monument: | |
| Utilities for visitor center | 24, 100 |
| T.J. Ruins: | |
| Water system | 24, 100 |
| Sewer system | 10, 200 |
| Power system, diesel plant with standby unit | 15, 400 |
| Grand Canyon National Park—South rim: Grounds improvement, trailer village and Yavapai expansion, M–89 | 15, 400 |
| Lake Mead National Recreation Area—Arizona: Willow Beach employee residence, duplex (portion) | 20, 000 |
| Mesa Verde National Park—North entrance: Water supply and distribution system, U–41–1, sewage collection and disposal system for 5 residences, U–48 | 77, 900 |
| Natural Bridges National Monument: Utilities, water, sewer, and power, U–1–5, U–2–4, U–4 | 34, 300 |
| Navajo National Monument: Seasonal employee quarters (3-unit apartment), including furnishings and equipment, B–13–1 | 40, 000 |
| Saguaro National Monument: Water system, U–1–5 | 72, 300 |
| Tonto National Monument: | |
| Extension of utilities, U–3–9, U–4–1, U–11–1 | 1, 800 |
| Employee housing (2), B–10–5, M–9–1 | 40, 000 |

WESTERN REGION

| | |
|---|---|
| Muir Woods National Monument: Employee residences (3 3-bedrooms), B–2–7, B–13–1 | 60, 000 |
| Mount Rainier National Park—Paradise: Water system, U–98 | 37, 400 |
| Sequoia and Kings Canyon National Parks—Ash Mountain: Employee residences (8), B–165 | 160, 000 |
| Whiskeytown RA—Headquarters: | |
| Rehabilitate administration building | 14, 500 |
| Move and locate 7 transa houses | 8, 200 |
| Entrance signs and grounds improvements | 5, 000 |

MIDWEST REGION

| | |
|---|---|
| Badlands National Monument: | |
| Pinnacles entrance: Ranger station and fire cache, B–59 | 36, 400 |
| Cedar Pass: Incinerator, U–41 | 20, 500 |
| Dinosaur National Monument—Colorado: Artesia headquarters: Entrance development and signs, M–67 | 7, 400 |
| Rocky Mountain National Park: | |
| Headquarters area: Utility extensions | 8, 100 |
| Moraine Park Campground: Campground development (complete), tables, fireplaces, etc. (150 sites) (portion) | 30, 700 |
| Theodore Roosevelt National Memorial Park—Headquarters: | |
| Employee residences (2), B–31–1 | 41, 400 |
| Employee apartments (8 units) B–21–3 | 92, 200 |
| Wilson's Creek Battlefield National Park: | |
| Employee residences (2) | 40, 000 |
| Utility building and pumphouse | 30, 200 |
| Water system | 19, 700 |
| Sewage disposal system | 5 100 |
| Interpretive and informational signs | 5, 000 |
| Wind Cave National Park: Employee apartments (12 units) B–24 | 133, 100 |
| Yellowstone National Park—Mammoth: Employee residences, (5) 3-bedrooms | 103, 500 |

NATIONAL CAPITAL REGION

| | |
|---|---|
| Park system, general: | |
| Improvements to small parks and reservations (portion) | 194, 800 |
| Fort Washington: Continuation of historical restoration and stabilization | 25, 000 |
| Grand total | 2, 300, 000 |

Chairman HAYDEN. Are replacement funds for these construction projects included in the fiscal year 1965 budget estimate?

Mr. HARTZOG. Yes, sir, they are.

Senator MUNDT. Are these lands owned by people who have held them for some time or have some speculators moved in and purchased them just to take advantage of the Government? I notice you have a $2 million item here for a thousand acres owned by the Drakes Beach Estates & Seashores Land, Ltd. That looks like an outside group which has moved in to purchase the land to highjack Uncle Sam. How about it?

Mr. HARTZOG. Senator, Mr. Lee has been out there on that project. Don, can you answer that question?

### POINT REYES LAND ACQUISITION

Mr. LEE. The Drakes Beach Estates, Senator, was a budding subdivision with streets laid out, utilities in there and sewage facilities. In the Drakes Beach Estate, there already were 8 or 10 houses built. There was a campaign on to sell those lots which were commanding very high prices. Those were selling at the rate of about $7,000 or $8,000 per lot. In order to stop further development there it was determined that we would have to buy those lots out in the developed area so we made an early deal with the Drakes Beach Estates and their subsidiary corporation, Seashore Lands, Ltd. For a total of slightly over $2 million we purchased approximately 1,100 acres of the developed division area. That means that we have bought up all of the undeveloped land that has not been sold us by the corporation. That purchase has been consummated and the title has been transferred to us.

Mr. HARTZOG. Senator, we will put a list of the Point Reyes property acquired and the cost of its acquisition in the record, if we may.

(The list referred to follows:)

*Purchases made with first $7,000,000 appropriated for Point Reyes land acquisition*

| Property | Acreage | Purchase price | Paid | Deferred payment |
|---|---|---|---|---|
| 1. Heims Ranch | 1,115 | $850,000 | $850,000 | |
| 2. Drakes Beach Estates, Inc. | 1,000 | 1,925,000 | 1,925,000 | |
| 3. Seashore Lands, Ltd. | 190 | 125,000 | 125,000 | |
| 4. Palmorain Ranch | 3,100 | 2,028,000 | 1,028,000 | $1,000,000 (1,500 acres) by Sept. 30, 1964. |
| 5. Bear Valley Ranch | 7,714 | 5,725,000 | 1,660,000 | $2,032,500 (3,314 acres) by June 30, 1965<br>$2,032,500 (2,973 acres) by June 30, 1966, or sooner. |
| 6. Limantour Spit | 100± | (1) | (2) | |
| 7. Alamea Development Co. | 14.7 | 50,000 | 50,000 | |
| 8. 7 lots | 3.08 | 60,400 | (3) | |
| 9. Timber rights | 3,700 | (1) | (4) | |
| 10. Point Ryes Land & Development Co. (Option) | 428 | 310,000 | (5) | |

[1] Not determined.
[2] $1 paid into court. To be determined in judicial proceedings.
[3] 60,400 title being examined.
[4] $300,000 paid into court under declaration of taking.
[5] $100,000 to be paid in 1964 fiscal year, $210,000 (2.89 acres) to be paid Oct. 31, 1964.

NOTE.—Total expended or under commitment for land purchases (exclusive of expenses) to date, $6,308,401 plus undetermined liability for Limantour Spit and timber rights.

CONSTRUCTION (LIQUIDATION OF CONTRACT AUTHORIZATION)

Chairman HAYDEN. The justification for an appropriation of $30 million for construction (liquidation of contract authorization) will be included in the record. This is $1 million greater than the appropriation for this purpose in fiscal year 1964 and is $12 million for parkways and $18 million for roads and trails.

(The justification referred to follows:)

*Construction (liquidation of contract authorization)*

| | |
|---|---|
| Appropriation, 1964 | $29,000,000 |
| Decreases: | |
| Parkways | 11,000,000 |
| Roads and trails | 18,000,000 |
| Subtotal | 29,000,000 |
| Increases: | |
| Parkways | 12,000,000 |
| Roads and trails | 18,000,000 |
| Budget estimate, 1965 | 30,000,000 |

*Analysis by activities*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase |
|---|---|---|---|---|
| 1. Parkways | $14,003,713 | $15,533,690 | $16,531,600 | $997,910 |
| 2. Roads and trails | 17,927,225 | 18,190,640 | 19,468,400 | 1,277,760 |
| Total expenditures | 31,930,938 | 33,724,330 | 36,000,000 | 2,275,670 |
| Less balance available from prior years | 15,655,268 | 10,724,330 | 6,000,000 | 4,724,330 |
| Total expenditures from current appropriation | 16,275,670 | 23,000,000 | 30,000,000 | 7,000,000 |

*Contract authorization and liquidation program*

| | Contract authority available | Obligations | Unliquidated obligations, prior years | Total obligations | Expenditures | Unliquidated obligations carried forward |
|---|---|---|---|---|---|---|
| FISCAL YEAR 1963 | | | | | | |
| Parkways | $21,897,288 | $15,940,708 | $20,593,249 | $36,533,957 | $14,003,713 | $22,530,244 |
| Roads and trails | 19,458,581 | 18,390,117 | 12,758,651 | 31,148,768 | 17,927,225 | 13,221,543 |
| Total | 41,355,869 | 34,330,825 | 33,351,900 | 67,682,725 | 31,930,938 | [1] 35,751,787 |
| FISCAL YEAR 1964 | | | | | | |
| Parkways | $22,506,580 | $19,956,580 | $22,530,244 | $42,486,824 | $15,533,690 | $26,953,134 |
| Roads and trails | 23,068,464 | 22,668,464 | 13,221,543 | 35,890,007 | 18,190,640 | 17,699,367 |
| Total | 45,575,044 | 42,625,044 | 35,751,787 | 78,376,831 | 33,724,330 | [2] 44,652,501 |
| FISCAL YEAR 1965 | | | | | | |
| Parkways | $18,550,000 | $12,400,000 | $26,953,134 | $39,353,134 | $16,531,600 | $22,821,534 |
| Roads and trails | 25,400,000 | 21,600,000 | 17,699,367 | 39,299,367 | 19,468,400 | 19,830,967 |
| Total | 43,950,000 | 34,000,000 | 44,652,501 | 78,652,501 | 36,000,000 | 42,652,501 |

[1] Available cash for liquidation is $10,724,330; balance of $25,027,457 is unfunded obligations.
[2] Available cash for liquidation is $6,000,000; balance of $38,652,501 is unfunded obligations.

*Construction (liquidation of contract authorization)—Status of cash appropriation for liquidation of contract authorization*

| | 1963 | 1964 | Estimate, 1965 |
|---|---|---|---|
| Appropriation | [1] $27,000,000 | $29,000,000 | $30,000,000 |
| Unexpended balance brought forward | 15,655,268 | 10,724,330 | 6,000,000 |
| Total available | 42,655,268 | 39,724,330 | 36,000,000 |
| Less expenditures | 31,930,938 | 33,724,330 | 36,000,000 |
| Unexpended balance | 10,724,330 | 6,000,000 | |

[1] Excludes $2,000,000 withdrawn for Bureau of Indian Affairs.

*Need for funds.*—The estimate of $30 million is for liquidating contractual obligations scheduled for the 1964 and prior year programs and for making partial payments against obligations to be incurred during 1965. Section 2, subsections (5) and (6) of the Federal-Aid Highway Act of 1962, provides contract authorization of $16,550,000 for 1964 and $16 million for 1965 for parkways, and $22 million for 1964 and $25 million for 1965 for park roads and trails. Programs provided for in this estimate to be carried out during 1965 under this contract authorization are in the amounts of $12,400,000 and $21,600,000 for parkways, and roads and trails, respectively, a total of $34 million.

1. PARKWAYS, $12 MILLION

The estimate will provide $12 million to meet expenditure requirements estimated to accrue through the 1965 fiscal year for liquidation of obligations incurred and to be incurred under the contract authorization.

The proposed program for 1965 of $12,400,000 will permit work on seven of the nine authorized parkways. Of the 18 major road projects on the parkways, 8 involve amounts in excess of $500,000 each, of which 3 exceed $1 million each. The acquisition of parkways lands and their donation to the Federal Government are being pursued by the various States so that construction can move forward without delay.

The parkways continue to receive enormous public use and each new stretch of mileage calls for complementary facilities, such as access roads, campgrounds, picnic areas, utility systems, and comfort stations. Other associated facilities, such as utility buildings, must also be provided. The 1965 program provides $1,317,800 for these purposes.

*Major projects*

*Blue Ridge Parkway, $2,919,900 (North Carolina, $2,605,000; Virginia, $314,900).*—This parkway was started in 1933 under authority of the National Industrial Recovery Act of June 16, 1933. When completed, it will extend along the crest of the Blue Ridge Mountains for a distance of 469 miles from Shenandoah National Park in Virginia to Great Smoky Mountains National Park in North Carolina.

In North Carolina, the program proposes the completion of the remaining 6 miles of the parkway around Asheville between U.S. Highways Nos. 25 and 70 at Oteen. Construction is now underway on a 5-mile section between Highway 191 and the crossing of U.S. Route 25. This 6-mile section and the 5.5 miles around Grandfather Mountain, are the only stretches of the entire parkway remaining to be completed. The program also proposes the continuation of work to stablilize tunnel portals on five existing tunnels where scaling rocks and dripping water are a potential hazard to the parkway motorist.

In Virginia, funds are included for the construction of the Yellow Mountain Area Road and completion of the Mill Mountain Spur Road to connect the parkway with a proposed campground development and other recreational facilities on Chestnut Ridge and Mill Mountain. All of this work is a part of the Yellow Mountain developed area in the vicinity of Roanoke. Funds for a portion of the Mill Mountain Spur Road were provided in the 1964 program.

*Colonial Parkway, $485,000 (Virginia).*—The Colonial Parkway had its inception in the act of July 3, 1930, which was the basic act for establishing Colonial National Historical Park. Subsequently, the parkway was more specifically authorized by the act of June 5, 1936 (16 U.S.C. 81c). It connects Yorktown, Williamsburg, and Jamestown Island by a 22-mile scenic roadway, portions of which parallel the York and James Rivers.

The program provides for two grade separation projects which will make possible the elimination of two dangerous crossings east and south of Williamsburg in the vicinity of a rapidly developing suburban area.

*Foothills Parkway, $1,791,200 (Tennessee).*—The Foothills Parkway was authorized by the act of February 22, 1945 (16 U.S.C. 403h–11). When completed it will extend approximately 68 miles generally parallel to the northern boundary of the Great Smoky Mountains National Park between the Pigeon River near Hartford and the Little Tennessee River at Chilhowee. An additional 4 miles, known as the Gatlinburg Spur, are complete and parallel the West Fork of the Little Pigeon River between Gatlinburg and Caney Creek.

The 1965 program provides for commencement of construction on a 5½-mile section from the eastern terminus of the parkway at the Pigeon River to extend along Green Mountain to Cosby. The section will connect with proposed Interstate Route 40 near Brown Island, at the Pigeon River, where the State is constructing an interchange for the Foothills Parkway. A slope stabilization project on the Gatlinburg Spur will eliminate danger of failure on cut slopes and prevent damage to the existing road.

*George Washington Memorial Parkway, $875,700 (District of Columbia and Virginia).*—This parkway is authorized to extend from Mount Vernon to Great Falls on the Virginia side of the Potomac River and from Great Falls to Fort Washington on the Maryland side, a total length of about 49 miles, not including the distance through Alexandria, Va., and the District of Columbia. The program proposes the continuation of work necessary to relocate and construct portions of the parkway road network on Columbia Island as a result of the construction of the Theodore Roosevelt Memorial Bridge and Virginia approaches to the bridge. This work will also alleviate to a great extent the existing traffic congestion by giving continuity to the parkway through Columbia Island. The program also includes funds for the reconstruction of the entrance road to the Fort Hunt developed area including road improvements on the parkway motor road. This reconstruction work will enable safe and convenient access to a recreation area now receiving heavy public use.

*Natchez Trace Parkway, $3,831,300 (Alabama, $576,600; Mississippi, $2,604,700; Tennessee, $650,000).*—A survey to determine the route of this parkway was authorized by the act of May 21, 1934, and construction was started with funds allocated from the Emergency Relief Appropriation Act of 1935. When completed the parkway will extend for a distance of about 450 miles from Nashville, Tenn., to Natchez, Miss.

In Alabama the program proposes the completion of structures located on the 7-mile section extending from the south side of the Tennessee River bridge to U.S. Highway No. 72 near Cherokee. Funds for the grading and other bridge work were provided in the 1962 and 1964 fiscal year appropriations. Upon completion of this work a usuable unit of 20 miles will be provided in northwest Alabama.

In southwest Mississippi, the program provides for continuing the parkway construction from U.S. Highway No. 61 at Port Gibson to Mississippi Highway 552 for a distance of about 6 miles. This new work is adjacent to a 35-mile unit in various stages of construction. Twenty-five miles of this unit are currently being paved between Oakley-Edwards Road and the Big Bayou Pierre. The 1965 program also includes funds for the completion of structures located on a 15-mile unit extending north from the Oakley-Edwards Road to U.S. Highway 80 and Interstate Route 20 in the vicinity of Clinton. Funds for the grading of this section were provided in the 1964 program. Upon completion of all this work, a usable unit of some 56 miles will be provided in southwest Mississippi. The program also provides for the completion of the parkway relocation for the Pearl River Valley Reservoir development north of Jackson. The first contract for the relocation and reconstruction of 8.5 miles of the parkway is currenlty underway.

In Tennessee the program provides for continuing parkway construction in Lewis County on a section extending north from Tennessee Highway No. 99 to a county road near the Hickman County line. This new work is adjacent to a 5-mile unit on which construction is underway between Meriwether Lewis National Monument and Highway 99. Upon completion of these two sections some 57 miles of continuous parkway will be provided in Tennessee.

*Rock Creek and Potomac Parkway, $979,100 (District of Columbia).*—The Rock Creek and Potomac Parkway was authorized by the act of March 4, 1913 (37 Stat. 885) to be under the jurisdiction of the Corps of Engineers, U.S. Army, as a part of the park system of the District of Columbia. Jurisdiction of the park-

way was placed under the Director, Public Buildings and Public Parks, by the act of February 26, 1925 (43 Stat. 983), and consolidated into the National Park Service by Executive Order No. 6166 issued pursuant to the act of March 3, 1933 (47 Stat. 1517).

The 1965 program will complete the zoo bypass project now under construction in the vicinity of the Zoological Park. When completed the two-lane roadway will provide the motorist with a continuous 24-hour scenic park road in the Rock Creek Valley, and the separation of the through north-south traffic from the secondary roads within the zoo area. Funds were provided in the 1963 program for the grading, vehicle tunnel, and structures. The 1965 program provides for the final paving, fencing, signs, and miscellaneous work. The program also provides for reconstruction of the existing parkway between Shoreham Hill and Massachusetts Avenue and P Street to Pennsylvania Avenue. The project will provide median strips, the widening of the Shoreham Hill Bridge and other road improvements.

*Minor projects*

*Minor roads and trails, buildings, utilities, etc., $1,317,800.*—This program provides for some 42 minor projects which include campground and picnic area roads, trails, parking areas, campground developments, picnic facilities, comfort stations, utility systems, and other visitor facilities required to make the parkways usable recreation units.

Funds are included for completing the Julian Price campground and picnic area roads in North Carolina; a new campground development at Yellow Mountain and maintenance facilities near Roanoke, Va., completing the Great Neck picnic area on the Colonial Parkway near Williamsburg; the completion of picnic area roads and other facilities at Dancy in Mississippi and the completion of a picnic area and campground development at Little Swan in Tennessee on the Natchez Trace Parkway; and other visitor facilities at Greenbelt Park on the Baltimore-Washington Parkway in Maryland and various locations along the George Washington Memorial Parkway in Virginia and Maryland.

*Advance planning ($200,000).*—This item provides for planning work, including master planning, that must be accomplished prior to project funding.

2. ROADS AND TRAILS, $18 MILLION

The estimate provides $18 million to meet expenditure requirements estimated to accrue through the 1965 fiscal year for liquidation of obligations incurred and to be incurred under the contract authorization.

The roads and trails construction program, in the amount of $21,600,000, is $3,400,000 less than the $25 million authorized in the Federal-Aid Highway Act of 1962. The program is broken down into the following broad categories.

| | |
|---|---|
| Major roads: | |
| Reconstruction | $5, 020, 600 |
| Paving | 1, 700, 800 |
| New work | 4, 771, 500 |
| Miscellaneous minor roads and trails projects | 9, 607, 100 |
| Advance Planning | 500, 000 |
| Total | 21, 600, 000 |

Many of the existing park roads are antiquated and the standards do not come up to present day requirements. Many of them have been in use longer than the normal life expectancy. Road bases and surfaces have deteriorated and some structures are outdated. In some instances, relocation is the only means of meeting minimum traffic requirements and of eliminating steep, narrow, and winding sections of road which are unsafe for present day vehicular traffic. The estimate provides for work on 128 miles of major roads, including reconstruction of 69 miles; 29 miles of paving; and construction of 30 miles of new roads. The remainder of the program provides for numerous minor roads and trails projects; parking areas, campground roads, drainage structures, etc.; and for advance planning, reconnaissance surveys, topographic surveys, etc. Provision must also be made for turnouts, parking spaces, and overlooks for the safety and enjoyment of motorists.

Although the Service holds construction of new roads to a minimum, some are necessary to disperse the concentrated public use and alleviate the resulting abuse of some areas of the national park system. The Service's policy on providing roads is to make a number of sites and objects available to the visitor and to supplement the roads with trails to accommodate those people who wish a

closer look at park features. The roads and trails also serve as accesses for protection and management purposes.

Based upon estimates compiled in April 1963, it would require $252,403,000 after the 1965 fiscal year to complete construction and reconstruction of roads and trails in areas authorized for administration by the Service.

It is pertinent to point out that of the total request of $21,600,000 for roads and trails construction in 1965, $1,690,300 or 7.8 percent is for work in seven new areas that have been activated since the commencement of Mission 66 and $1 million or 4.6 percent is for work in Vicksburg National Military Park, for which additional authorizing legislation was enacted in the 88th Congress.

Projects estimated to require $100,000 or more are shown as follows:

| *Project and Location* | *Amount* |
|---|---|
| Northeast region: | |
| Antietam National Battle Site (Maryland): Bypass road to Hagerstown Road, 2.32 miles | $336,300 |
| Cape Cod National Seashore (Massachusetts): Reconstruction of portion of existing roads, trails, walks, paths, and parking areas | 600,000 |
| Lincoln Boyhood National Memorial (Indiana): Relocation of State Highway 345 | 125,000 |
| Saratoga National Historical Park (New York): Entrance road, intersection to town road | 173,400 |
| Southeast region: | |
| Castillo de San Marcos National Monument (Florida): Castillo Dr. and parking area | 207,200 |
| Fort Raleigh National Historic Site (North Carolina): Entrance road and parking area | 266,500 |
| Great Smoky Mountains National Park (North Carolina): | |
| Reconstruct Newfound Gap parking area | 625,000 |
| Reconstruct Cataloochee to East Park boundary, 5 miles | 558,500 |
| Bryson-Monteith Rd. section, 9A3, tunnel and approaches, 1 mile | 425,000 |
| Horseshoe Bend National Military Park (Alabama): Visitor tour road and 7 10-car parking areas | 206,200 |
| Vicksburg National Military Park (Mississippi): | |
| Highway 80, 0.53 mile, underpass and Baldwin Ferry Rd., 0.35 mile and relocate arch | 347,500 |
| Construct streets to replace those closed by reconstruction | 1,000,000 |
| Midwest region: | |
| Dinosaur National Monument (Colorado and Utah): | |
| Reconstruct Echo Park Rd., Route 8 (portion) grade, base, bituminous stabilize, 4.5 miles (Colorado) | 980,000 |
| Quarry-Blue Mountain Rd., quarry to Cub Creek campground, including bridge (complete) 2.7 miles (Utah) | 794,000 |
| Fort Laramie National Historic Site (Wyoming): entrance, utility, and residential roads and parking, includes archeological salvage | 283,600 |
| Glacier National Park (Montana): | |
| Camas Creek cutoff, Route 8B, 5 miles, base, grade, and bituminous stabilize (portion) | 700,000 |
| Reconstruct roads and walks, Logan Pass visitor center | 125,000 |
| Roads and parking, additional camping loops and extend existing loops, Apgar campground | 103,000 |
| Grand Teton National Park (Wyoming): Reconstruct north approach road to Yellowstone, 1.5 miles | 250,000 |
| Theodore Roosevelt National Memorial Park (North Dakota): Scenic loop road, 12.5 miles, grade, base, and bituminous stabilize | 665,000 |
| Yellowstone National Park: | |
| Wyoming: | |
| Norris bypass and parking area and relocate Norris Junction, 3.5 miles; and reconstruct road from Norris bypass to Gibbon River Bridge, 2.5 miles, Route 1B and Route 12 | 795,000 |
| Reconstruct road and parking areas, Chittenden Bridge to Artist Point, Route 160, 1.6 miles, base and bituminous surface | 325,000 |
| Montana: Reconstruct Red Lodge-Cooke City approach road (portion) | 200,000 |

| *Project and Location* | *Amount* |
|---|---|
| Southwest region: | |
| Arches National Monument (Utah): Surface treatment, 9.2 miles | $125,000 |
| Big Bend National Park (Texas): Route 5 from Route 3 to Castolon and Interpretive spur roads, 17 miles, 10 parking areas (100 cars) | 922,000 |
| Capulin Mountain National Monument (New Mexico): Improve crater ascent road, construct retaining wall | 186,000 |
| Great Sand Dunes National Monument (Colorado): Reconstruct entrance road, turnouts, and parking area at Mosca Creek picnic area (55 cars) 4.5 miles | 122,500 |
| Natural Bridges National Monument (Utah): | |
| Kachina Bridge spur road, 1.3 miles and terminal parking area (40 cars) grade, base, drainage, surface | 112,100 |
| Owachomo Bridge spur road, 1.3 miles and terminal parking area (40 cars) grade, base, drainage, surface | 112,100 |
| Mesa Verde National Park (Colorado): Wetherill Mesa Rd., Navajo Hill to Wetherill Mesa including loop and parking areas at Rock Springs, 6 miles | 840,000 |
| Petrified Forest National Park (Arizona): Reconstruct park roads south of U.S. 66, enlarge 16 parking areas to viewpoints, 30 miles (portion) | 476,000 |
| Wupatki-Sunset Crater National Monuments (Arizona): Road, portion of section D, 6.27 miles | 282,500 |
| Western region: | |
| Hawaii Volcanoes National Park (Hawaii): Kalapana Rd., final paving, 18.3 miles | 813,000 |
| Lava Beds National Monument (California): Reconstruct, grade, and base course north boundary road, 8 miles (including archeological salvage) | 410,000 |
| Mount Rainier National Park (Washington): | |
| Stevens Canyon Road, rehabilitation of structures and drainage, Route 4, 18.6 miles | 475,000 |
| Recondition and pave Nisqually entrance road, 1.5 miles (portion) | 336,100 |
| Paradise, parking area, grounds improvement, and picnic area (portion) | 107,400 |
| Headquarters, clear, grade, drain, base, and oil (1.3 miles road, parking areas, snow plazas, etc.) | 100,000 |
| Point Reyes National Seashore (California): Roads (0.7 miles) and parking area (300 cars) (portion) | 109,500 |
| Sequoia and Kings Canyon National Parks (California): Access campground roads, Clover Creek | 300,000 |
| Whiskeytown Recreation Area (California): Road, Brandy Creek to Dry Creek (1.5 miles) | 255,000 |
| Yosemite National Park (California): Big Oak Flat Road, Crane Flat to Carl Inn, surface and pave (8.3 miles) | 426,500 |
| National Capital regon: | |
| Anacostia Park (District of Columbia): Access road and walks and parking (200 cars) for visitor center, Kenilworth | 112,000 |
| West Potomac Park (District of Columbia): Reflecting Pool drives, Lincoln Memorial to 14th Street (portion) | 300,000 |

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $34,330,825 | $42,625,044 | $34,000,000 | −$8,625,044 |
| Unobligated balance brought forward (contract authorization) | −41,355,869 | −45,575,044 | −43,950,000 | +1,625,044 |
| Unobligated balance carried forward (contract authorization) | 45,575,044 | 43,950,000 | 43,950,000 | |
| Unfunded balance at beginning of year | 59,052,500 | 70,602,500 | 82,602,500 | +12,000,000 |
| Unfunded balance at end of year | −70,602,500 | −82,602,500 | −86,602,500 | −4,000,000 |
| Appropriation to liquidate contract authorization | 27,000,000 | 29,000,000 | 30,000,000 | 1,000,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 4,866,229 | 5,635,000 | 5,573,000 | −62,000 |
| 12 Personnel benefits | 314,569 | 356,000 | 354,000 | −2,000 |
| 21 Travel and transportation of persons | 423,995 | 500,000 | 550,000 | +50,000 |
| 22 Transportation of things | 71,628 | 79,000 | 74,000 | −5,000 |
| 23 Rent, communications, and utilities | 125,920 | 130,000 | 130,000 | |
| 24 Printing and reproduction | 30,598 | 31,000 | 31,000 | |
| 25 Other services | 1,787,953 | 1,808,000 | 1,808,000 | |
| 26 Supplies and materials | 363,192 | 480,000 | 430,000 | −50,000 |
| 31 Equipment | 122,400 | 163,000 | 133,000 | −30,000 |
| 32 Lands and structures | 24,941,613 | 33,430,144 | 26,413,000 | −7,017,144 |
| 41 Grants, subsidies, and contributions | 1,277,100 | 12,900 | | −12,900 |
| 42 Insurance claims and indemnities | 5,628 | | | |
| Subtotal | 34,330,825 | 42,625,044 | 35,496,000 | −7,129,044 |
| Deduct portion of the foregoing originally charged to object class 32 | | | −1,496,000 | −1,496,000 |
| Total obligations | 34,330,825 | 42,625,044 | 34,000,000 | −8,625,044 |

ROAD CONSTRUCTION PROGRAM

Chairman HAYDEN. Will you comment on the road program?

Mr. HARTZOG. Mr. Jensen, Mr. Chairman, has a statement on this.

Mr. JENSEN. I have no comment to make other than have the record show——

Mr. HARTZOG. Mr. Chairman, what is the question again?

Chairman HAYDEN. I was trying to ask what kind of road program you have.

Mr. MONTGOMERY. It would be a continuation of our long-range program for providing the necessary roads in the parks, for rehabilitating roads that have worn down and are not up to standard to meet the traffic that is brought on by the heavy visitor use. It would also provide for roads in new park areas that are now coming into the system. It is a continuation of a program which has been underway for a long time.

LAKE MEAD NORTH SHORE ROAD

Chairman HAYDEN. What is the status of the construction of North Shore Road in the Lake Mead National Recreational Area for which $2,020,000 was appropriated in fiscal year 1964?

Mr. JENSEN. The proposed North Shore Road, extending from the boundary near Overton, Nev., to its intersection with Route 93 near the headquarters area in Boulder, Nev., is approximately 78.6 miles in length. Sections 1A and 1B, from Overton to Echo Bay, a distance of about 26.6 miles, have been completed as has section 1F from headquarters to Las Vegas Wash, a distance of about 13.3 miles. Section 1E, about 9 miles in length, is under contract. The $2,020,000 provided in the 1964 fiscal year is to finance construction of the re-

maining sections, totaling approximately 29 miles. We expect to contract for this work before June 30, 1964.

Senator BIBLE. May I ask one question at that point because it does involve my State. When this is put to contract will this complete the road?

Mr. JENSEN. Yes, this will complete the road from the park headquarters up to Overton.

Senator BIBLE. Will this be a hard-surfaced road?

Mr. JENSEN. Yes, sir.

Senator BIBLE. Thank you.

### ROAD BETWEEN WUPATKI AND SUNSET CRATER

Chairman HAYDEN. There is a budget estimate of $282,500 for the road between Wupatki and Sunset Crater National Monuments. How much will you be able to accomplish with this fund? And how much will be needed to complete the necessary work?

Mr. HARTZOG. Mr. Chairman, we have a statement on this which we will put in the record if we may, in the interest of time.

(The statement referred to follows:)

### WUPATKI-SUNSET CRATER NATIONAL MONUMENTS

Prior year projects have placed the entrance roads to the two areas in good shape and have also reconstructed part of "back country" road between the monuments. The $282,500 project in the 1965 fiscal year program is for continuation of the work on the latter road. This project will complete grading, base course, and surface treatment in all Government portions of the road. It is estimated that about $622,000 will be required for completion, most of which is for final paving.

The 5.2-mile portion of the county-owned road is not included. The total mileage of the loop road is 34.5 miles, including the 5.2 miles, of county roads.

The visitor center for Wupatki in the 1963 program was advertised but bids were so far over the estimated and programed amounts that they were rejected. Plans and specifications have been revised and the project will be readvertised shortly.

Utility systems for Sunset Crater are scheduled for advertisement in May with the buildings to follow shortly. Buildings at Wupatki in the 1964 fiscal year will probably be advertised at the same time as those for Sunset Crater.

### GENERAL ADMINISTRATIVE EXPENSES

Chairman HAYDEN. There will be included in the record your justification for a budget estimate of $2,412,000 for general administrative expenses. This is $275,250 more than was appropriated in fiscal year 1964.

(The justification referred to follows:)

### GENERAL ADMINISTRATION EXPENSES

#### HIGHLIGHT STATEMENT

*Broad purpose and long-range objective of program*

This appropriation finances certain administrative functions in the Washington office and five regional offices incident to the fulfillment of the Service's many responsibilities. The administrative functions are general in nature and include the formulation of the Service's policies; prescribing of procedures; information, program coordination, management analysis, and financial, personnel, property, and records management functions; and overall executive direction and coordination of the Service programs and functions. The long-range objective is to have the Washington and regional offices discharge these administrative and executive

direction functions in a manner that will facilitate fulfillment of the Service's multiple responsibilities to the maximum extent at the least possible cost.

*Accomplishments during the past year*

The accomplishments under the Service's various programs during the past year, as discussed under the other appropriation headings, can be credited largely to the administrative functions financed under this appropriation. None of the programs could be carried forward without the administrative functions. Some specific accomplishments are: A new financial management system to serve the three field design and construction office operations was developed and installed on a pilot basis in the Western Office of Design and Construction in San Francisco, Calif., and plans were made for installing it in the Eastern Office of Design and Construction in Philadelphia, Pa., during the 1964 fiscal year. The Service continued to install permit-validating machines (in lieu of preprinted accountable stock permits) for the collection of visitor fees where entrance station operations would be facilitated thereby and additional machines will be placed in operation during the 1964 fiscal year. Plans were made for closing the field finance offices at Mount Rainier and Olympic National Parks, Wash., and transferring their functions to the western regional office at San Francisco, Calif., during the 1964 fiscal year, with an estimated net annual saving of $32,000 and five permanent positions.

In the area of property and records management, a formal agreement was executed between the Service and the Federal Housing Administration under which by mutual arrangement, certain quarters rental rates will be established based on FHA appraisals, in lieu of appraisals being made by Service personnel, further improving manpower utilization and providing rates supported by action of an organization recognized in the field. The continuation of the records disposal programs resulted in a net decrease of 1,501 cubic feet of files.

In the field of personnel management, continued emphasis was given to the recruiting circulars and brochures for career and seasonal employment. Emphasis also continued on the use of management and development seminars and formal training programs for selected service officials showing promise in the executive field.

The reorganization and modernization of the directive's system resulted in the completion of seven additional hand books and two complete rewrites.

*Objectives and program for current and budget years*

The objectives for the current and budget years, as well as the long-range objectives, are to continue to discharge the administrative and executive direction functions in the most effective, efficient, and economical manner, and to facilitate the prosecution of all the Service's diversified programs to the maximum extent possible.

The budget includes an increase to provide for 20 additional positions in the Washington and regional offices that are essential to meet the increased administrative workload, to strengthen training and trust fund activities, and to provide for intensification of management analysis and statistical functions. The administrative workload in the Washington and regional offices has increased constantly since the commencement of Mission 66 during which period increases in this appropriation have provided for only six additional positions for the Washington office and for no additional positions in the regional offices. This request is in the interest of full utilization of manpower and fund resources.

*General administrative expenses*

| | |
|---|---|
| Appropriation, 1963 | $1,964,000 |
| Pay cost supplemental | 91,200 |
| Total appropriation, 1963 | 2,055,200 |
| Appropriation, 1964 | 2,136,750 |

SUMMARY OF INCREASES, 1965

| | |
|---|---|
| To provide for increased pay costs for fiscal year 1964 positions | 68,600 |
| To strengthen financial management functions in the Washington office | 17,000 |
| To strengthen training functions in the Washington office | 15,000 |
| To intensify management analysis and statistical functions in the Washington office | 54,650 |
| To provide management analysis staffs in the regional offices | 100,000 |
| To increase the effectiveness of the Service's trust fund program | 20,000 |
| Net change, 1965 | 275,250 |
| Budget estimate, 1965 | 2,412,000 |

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 | | |
|---|---|---|---|---|
| | | Total appropriation | Transfers | Amount available |
| 1. Departmental expenses | $1,261,408 | $1,304,350 | | $1,304,350 |
| 2. Regional office expenses | 786,399 | 832,400 | | 832,400 |
| Unobligated balance lapsing | 7,393 | | | |
| Total | 2,055,200 | 2,136,750 | | 2,136,750 |

*Analysis by activity*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. Departmental expenses | $1,261,408 | $1,304,350 | $1,457,000 | $152,650 | $46,000 | $106,650 |
| 2. Regional office expenses | 786,399 | 832,400 | 955,000 | 122,600 | 22,600 | 100,000 |
| Unobligated balance lapsing | 7,393 | | | | | |
| Total | 2,055,200 | 2,136,750 | 2,412,000 | 275,250 | 68,600 | 206,650 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*1. Departmental expenses*

| Subactivity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Personnel compensation and benefits | $1,035,238 | $1,112,000 | $1,250,000 | $138,000 | $46,000 | $92,000 |
| (b) General expenses | 180,026 | 167,350 | 182,000 | 14,650 | | 14,650 |
| (c) Administrative printing | 46,144 | 25,000 | 25,000 | | | |
| Total | 1,261,408 | 1,304,350 | 1,457,000 | 152,650 | 46,000 | 106,650 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

1. *Departmental expenses.*—The estimate of $1,457,000 is an increase of $152,650 over 1964, of which $46,000 is for increased pay costs.

Executive direction and certain administrative functions of the Washington office are financed under this activity. The functions are general in nature and include formulation of policy; prescribing of systems and procedures; public affairs and management analysis activities; financial, personnel, property and records management functions; and the overall executive direction and coordination of the various programs of the Service. The objective is to have the Washington office in a position to discharge these administrative functions in a manner that will facilitate fulfillment of the multiple responsibilities of the Service to the maximum extent at the least possible cost.

Since the commencement of Mission 66, there has been a constant increase in the administrative workload of the Washington office. This is evidenced by the increase in the Service's new obligational authority from $52,899,374 in 1956, the last year before the beginning of Mission 66, to $124,600,558 in 1964. Provision for meeting a small amount of the increased workload was made in the 1960 appropriation through an increase for 6 positions and a small amount for general expenses. No other provision has been made for additional staffing since Mission 66 started. While an increase of $383,000 was granted in the 1963 appropriation, it provided only for financing the salaries and expenses of certain positions formerly financed from construction funds.

New obligational authority has increased over 135 percent during the Mission 66 period while the "General Administrative Expenses" appropriation has increased only 40 percent, exclusive of the increase in the 1963 appropriation to cover salaries and expenses of certain positions formerly financed from construction funds. During that period, the "General Administrative Expenses" funds progressively diminished in comparison with the total program through 1962. While the percentage of the total for 1963 and 1964 shows a slight improvement over 1962, no increase in staffing was provided for as explained in the foregoing. A table setting forth these comparisons follows:

| Fiscal year | New obligational authority (nearest hundreds) | Appropriated for general administrative expenses | Percentage of total |
|---|---|---|---|
| 1956 | $52,899,400 | $1,250,000 | 0.0236 |
| 1957 | 70,454,800 | 1,250,000 | .0177 |
| 1958 | 77,162,400 | 1,390,650 | .0180 |
| 1959 | 84,072,800 | 1,429,300 | .0170 |
| 1960 | 85,551,100 | 1,475,000 | .0172 |
| 1961 | 93,602,500 | 1,581,000 | .0169 |
| 1962 | 114,376,500 | 1,581,000 | .0138 |
| 1963 | 132,609,700 | 2,055,200 | .0155 |
| 1964 | 124,600,600 | 2,136,750 | .0171 |

*Need for increase.*—The financial management workload; complexity of operations incident to present program levels; training needs for the increased number of Service employees; the need to intensify management appraisal, increase efficiency, and improve manpower utilization; and the Government interest served in promoting to the fullest extent possible the Service's trust fund programs require increased staffing and supporting general expense funds for the Washington office as follows:

Division of Budget and Finance, $17,000: Chief accountant, GS–14.
Division of Personnel, $15,000: Assistant training officer, GS–13.
Division of Management Analysis, $54,650:
- Statistician, GS–13.
- Economist, GS–13.
- Management analyst, GS–12.
- Clerk-stenographer, GS–5 (2).
- Clerk-DMT, GS–4.

Office of the Director, $20,000:
- Trust-fund officer, GS–13.
- Clerk-stenographer, GS–5.

*Division of Budget and Finance, $17,000*

The Division of Budget and Finance is responsible for the formulation, staff supervision, and direction of the servicewide financial management program, other than internal audit, and for staff functions incident to management of the visitor fee system.

The financial management functions include design, development, installation, field review, and central coordination and control of an integrated budgeting, accounting, and financial reporting system; analysis, compilation, and final preparation of all budget estimates including justifications and staff assistance in oral presentations; allotment of funds for the purposes for which appropriated or otherwise made available, and maintenance of control over such allotments; accounting, payrolling, claims settlement, and collection functions for Washington office activities, and maintenance of central control accounts; followup action on audit findings on a servicewide basis; and maintenance of continuing liaison with other agencies and offices concerned with financial management functions.

The visitor fee system management function includes the formulation of policy recommendations within broad policies promulgated by higher authority; continuing studies to determine changes that should be made in the fee structure to insure conformance with the governing policy, including the establishment of new fees when warranted; the handling of correspondence with respect to the fees charged; and the formulation of procedures, requirements, and practices for collecting, accounting for, and safeguarding the visitor fees.

The Division now consists of an office of the Chief and Assistant Chief and three branches—Budget, Accounting Systems, and Accounting Operations. This organizational structure was established in the early days of the Service's participation in the Government-wide financial management improvement program when its operations were much smaller in scope and much less complex than they are today.

With today's higher program levels and the attendant day-to-day budget and accounting matters requiring top level attention, the interests of the Government cannot be best served by the present organization under which the Chief of the Accounting Systems Branch and the Chief of the Accounting Operations Branch report directly to the Chief of the Division. It is essential that the Chief of the Division be relieved to the fullest extent possible of day-to-day accounting systems and operations workload in order that his time to the maximum degree possible may be devoted to the constantly increasing demands for top level attention to budget, accounting, and visitor fee matters. As the situation now stands, the workload is such that the accounting systems and accounting operations functions are not receiving adequate direction, supervision, and coordination. To correct this condition, the estimate requests an increase for a position of chief accountant, GS–14, to head up the accounting systems and operations functions.

*Division of Personnel, $15,000*

The additional training officer, GS–13, position requested for the Division of Personnel is vitally needed to assist the training officer, GS–14. The passage of the Government Employees Training Act of 1958 (Public Law 85–507) has generated considerable additional workload for the training officer and this increase in volume unquestionably will continue to mount. The training officer, unassisted, has not been able to set up guidelines for a formal program under the Government Employees Training Act or to do other things which would make use of the provisions of the Training Act more effective. These things include an intensive and continuing study of training needs which could be met through use of outside facilities, reports on these needs, and establishing criteria for the selection of employees to receive the benefits of training in outside facilities. The additional position will provide more nearly adequate leadership and assistance in management development, supervisory training, instructor training, orientation, safety training, etc., which are vital for the improvement of the career service of the Bureau and for more effective use of the Bureau's manpower. It is impossible for the training officer, unassisted, to plan and execute an adequate training program for a bureau of the size and complexity of the National Park Service. The pressures on the single training officer are mounting steadily and there are many demands on his time which he simply cannot meet.

The additional staff member requested would be able to do the following which now cannot be done:

1. Work up formal orientation programs for the Washington office and pattern programs and guidelines for field offices.
2. Develop manuals for supervisors to use in orientation training and in developing their staff members.

3. Prepare and edit a monthly management publication.
4. Plan and conduct supervisory training sessions. (Considerable progress has been made on executive training and management training, but only a start has been made on supervisory training and this is one of the greatest needs.)
5. Make field visits to advise on and assist in and evaluate park training programs.
6. Assist the training officer in conducting management seminars. (Hitherto this has of necessity been a one-man job. Management seminars, properly conducted, involve a tremendous amount of planning and detail. It is too much to expect one man to handle, along with the other work a training officer necessarily must do.)
7. Provide coverage and continuity in the Washington office when the training officer is in the field, as he should be a considerable portion of the time.

*To intensify management analysis and statistical functions, $54,650*

In the reorganization of January 12, 1962, a Division of Management Analysis was established in the Washington office. Basic staffing for the division was provided principally through transfer of personnel and functions from other organizational units existing prior to the reorganization. One important function of the new division for which no staffing is specifically available is the coordination and administration of a servicewide management appraisal program. These appraisals are for the purpose of measuring the sufficiency of administration, management, technical excellence, adherence to policy, manpower utilization, control of expenditures, and workload distribution throughout the Service. The estimate makes provision for new positions of management analyst, GS–12, and a clerk-stenographer, GS–5, to meet this need. The incumbent of the management analyst position would be immediately responsible for administering and coordinating the management appraisal program.

Included in the January 12, 1962, reorganization was the establishment, in the Division of Management Analysis, of a Branch of Statistics Analysis. The functions performed by this branch include those formerlly assigned to the Activities Analysis Section of the Division of Ranger Services and a nucleus staff for the new branch was provided by transfer to it of three positions formerly comprising the Activities Analysis Section.

The Branch of Statistics Analysis is the Service's sole vehicle for conducting rigorous quantitative analyses of the patterns of visitor use and visitor services in the 207 areas administered. As such it is the primary source of sifted, analyzed, and interpreted statistics for the guidance of development programs and current management of the parks. Some indication of the dimensions of the need for such guidance is seen in the estimated 96 million public visits the parks are expected to experience in 1964—a 46-percent increase over the 65 million experienced only 6 years earlier.

This organizational unit is responsible for exercising close technical controls over the kinds and quality of data generated regularly in the parks, for designing and executing special statistical investigations to meet problems not covered by data produced by standard statistical series, and for supplying appropriate officials of the Service, other Federal agencies, and the public with the kinds and amounts of statistical information requisite to their needs. Of particularly critical importance, the Branch is charged with the recurrent production of anticipatory data—information which alerts responsible officials of the Service of the imminence, dimensions, and character of problems foreshadowing the need for action—or change in predetermined line of action.

The present staff comprises three professional positions. Activities are severely hampered by the total absence of secretarial and clerical assistance. A clerk-stenographer, GS–5, is direly needed to provide assistance to the existing staff.

The past few years have witnessed a rapidly augmented volume of requests and demands for the technical services of the Branch. These have been responsive to needs for consultative services (both inside and outside the National Park Service), for the designing of special studies in the parks, and for processing and interpreting aggregations of data. The consequence is that demands vastly exceed the resources of the staff to meet them. There are large accumulations of data to be analyzed, investigations to be provided with technical designs, and basic management problems to be studied for reduction to statistical attack. To pick up the backlog and to meet the ever-increasing flow of new demands, three additional positions are needed: two professional and one clerical.

A statistician (operations and administration), GS–13, will direct and conduct the formal analyses of the existing and incoming aggregates of data. An economist (statistician, mathematician, or engineer), GS–13, versed in methodology,

is needed to apply and contrive modern economical techniques to a wide variety of Service management problems (entrance station queuing, internal information flow, comparative park workloads, etc.). Many of these problems can be attacked only cumbersomely by traditional methods—others cannot be tackled at all. A clerk-dictating machine transcriber, GS–4, will supply the necessary clerical support for these positions.

*Office of the Director, $20,000*

The proposed positions of trust fund officer, GS–13, and clerk-stenographer, GS–5, are needed to implement and carry forward the trust fund activity.

Two primary trust funds have been authorized by the Congress for the benefit of the national parks. The first, the act of June 5, 1920 (41 Stat. 917), grants broad authority to the National Park Service to accept donations including land, property, and money "* * * for the purposes of the national park and monument system." To date donations of money have amounted to nearly $12 million. Donations of land, if figured at an average value of $30 per acre, come to over $75 million The second, the act of July 10, 1935 (49 Stat. 477), created the National Park Trust Fund Board and authorizes the acceptance of gifts to be invested as in a foundation or endowment fund. Some $633,000 has been received under this program to date.

While the accomplishments have been substantial, there is ample opportunity to enlarge the scope and effectiveness of the trust fund program if full-time attention can be devoted to it. Heretofore, no individual has had this function as a primary responsibility with the result that the program has lacked continuity and has succeeded only to the extent that the Director and others have taken time from their other responsibilities to devote to it.

Substantial financial benefit accruing to the parks will be achieved by establishing the positions of trust fund officer and a clerk-stenographer. Through the trust fund officer, the Service will be in a position to develop and program a comprehensive portfolio of necessary and suitable projects having appeal to various kinds of donors. Such would range from small cash donations to a general fund by large numbers of givers, to special projects of considerable cost which would appeal to the class of sophisticated donors known to be in sympathy with park and conservation objectives. The trust fund officer would follow through and give leadership, continuity, and full-time thought and energy to the routine aspects of such an enterprise. He will also work closely with the Director and the Secretary of the Interior in enlarging the scope of trust fund programs and activities for national park purposes.

*Plan of work.*—The program contemplates provision of executive direction and the performance of certain administrative functions in the Washington office in support of all Service programs.

*2. Regional office expenses—Analysis by subactivities*

| Subactivity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Northeast office | $160,958 | $164,100 | $188,600 | $24,500 | $4,500 | $20,000 |
| (b) Southeast office | 155,471 | 168,100 | 192,600 | 24,500 | 4,500 | 20,000 |
| (c) Midwest office | 159,224 | 166,100 | 190,600 | 24,500 | 4,500 | 20,000 |
| (d) Southwest office | 148,846 | 163,100 | 187,600 | 24,500 | 4,500 | 20,000 |
| (e) Western office | 161,900 | 171,000 | 195,600 | 24,600 | 4,600 | 20,000 |
| Total | 786,399 | 832,400 | 955,000 | 122,600 | 22,600 | 100,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

2. *Regional office expenses.*—The estimate of $955,000 is an increase of $122,600 over 1964 of which $22,600 is for increased pay costs.

Executive direction, public affairs, management analysis, and program coordination functions in five of the regional offices are financed under this activity.

What was said under activity 1 concerning the increased administrative workload in the Washington office since the beginning of Mission 66 is equally true with respect to the regional offices. No additional staffing has been provided under the appropriation for the regional offices since the commencement of Mission 66.

*Need for increase.*—The program increase requested is for a small management analysis staff in each of the five regional offices. This additional staffing is needed

to carry out on a servicewide basis the management analysis and appraisal program discussed under activity 1. The need for the increase is discussed more specifically as follows:

*To provide for management analysis staffs, $100,000*

During the past decade the Service has experienced considerable expansion in the number of parks administered, size of staff, visitor use workload, and the levels of all programs for which it is responsible. There has been broad delegation of authority. To the fullest extent possible, authority and responsibility rest with those who actually perform the operations. The management analysis program is intended to help assure top management of effective and proper use of delegated authority and the efficiency and coordination of all activities. Management analysis is an important function of the Service and one which must receive increased emphasis in the interest of efficiency and economy and good manpower utilization.

The reorganization of January 12, 1962, provided for a Division of Management Analysis in the Washington office and anticipated eventual staffing for management analysis in each of the regional offices. The regional management analysis officer, GS–13, provided for in the estimate is to be responsible for planning and directing the management analysis functions throughout the region and for initiating programs and devising methods for improving the conduct of all activities of the region. This consists of reviewing and suggesting improved methods for conducting regional operations; making organizational, functional, and procedural studies; planning and directing regional forms and reports management programs; assisting in installing new organization and procedural plans; supervising and coordinating regional directives, correspondence, and records scheduling and disposition programs, and most importantly, formulating, programing, advising, assisting, and conducting broad management surveys of all functions performed by field offices within the respective regions in participation with technical specialists responsible for these functions. The management analysis officer would be responsible for the coordination and administration of the regional management appraisal program. These appraisals are for the purpose of measuring the sufficiency of administration, management, and technical excellence; adherence to policy; manpower utilization, control of expenditures, and workload distribution throughout the region. These functions are now the responsibility of the Assistant Regional Director for Administration but no staff has been provided to implement the management analysis program.

Each of the five regional management Analysis officers should have a GS–5 stenographer to assist in clerical duties as required.

*Plan of work.*—The program contemplates provision of executive direction and the performance of certain administrative functions in the regional offices in support of all Service programs.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $2,047,807 | $2,136,750 | $2,412,000 | $275,250 |
| Unobligated balance | 7,393 | | | |
| Appropriation | 2,055,200 | 2,136,750 | 2,412,000 | 275,250 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 1,606,287 | 1,707,000 | 1,922,000 | 215,000 |
| 12 Personnel benefits | 119,370 | 124,000 | 150,000 | 26,000 |
| 21 Travel and transportation of persons | 115,541 | 103,000 | 125,000 | 22,000 |
| 22 Transportation of things | 5,880 | 6,000 | 6,000 | |
| 23 Rent, communications, and utilities | 43,948 | 46,000 | 48,000 | 2,000 |
| 24 Printing and reproduction | 84,071 | 85,000 | 86,000 | 1,000 |
| 25 Other services | 31,227 | 30,750 | 33,000 | 2,250 |
| 26 Supplies and materials | 14,055 | 14,000 | 16,000 | 2,000 |
| 31 Equipment | 27,478 | 21,000 | 26,000 | 5,000 |
| 32 Lands and structures | −50 | | | |
| Total obligations | 2,047,807 | 2,136,750 | 2,412,000 | 275,250 |

Chairman HAYDEN. Would you please comment on the proposed program increase of over $106,000 for departmental expenses?

ADDITIONAL STAFFING IN WASHINGTON OFFICE

Mr. HARTZOG. One of these jobs is a trust fund officer position. Every year we report to the committee the amount of donations received by the National Park Service. In the period of Mission 66 these have now amounted to something in excess of $13 million. This program has been carried on almost entirely by former Director Wirth. One of the positions we would propose would be to provide a trust fund officer to continue to promote contributions from foundations and others. Another one is that of chief accountant in our Division of Budget and Finance.

Most of the positions involved would be in the Division of Management Analysis. This is a division in which we analyze our operations and evaluate our workload and manpower utilization program. We believe that these are particularly critical if we are to improve the operations of the Service as a whole.

Chairman HAYDEN. The $100,000 increase for regional office expenses is to provide management analysis staffs. Would you describe the work proposed for such staff and indicate who is now doing this work?

ADDITIONAL STAFFING IN REGIONAL OFFICES

Mr. HARTZOG. Sir, this work is largely not now being done. This ties back in with the management analysis staff of the Washington office. What we think is needed is a systematic program of analysis of our operations not only at the Washington office level which we now have in this reorganization but at the regional levels and at the field level to make sure that we continue to get our money's worth out of the programs of the Service. As we have mentioned to the committee before, we are likewise attempting to develop workload standards and this is one of the activities of this division.

PASSENGER MOTOR VEHICLES

Chairman HAYDEN. There will be included in the record your statement with regard to administrative provisions, which indicates a need for 118 passenger motor vehicles, 94 of which are for replacement.

(The statement referred to follows:)

ADMINISTRATIVE PROVISIONS

Authorization is requested for the purchase of 118 passenger motor vehicles of which 94 are for replacement only, including not to exceed 50 for police-type use, the cost of which may exceed by $300 each the general purchase price limitation for the current fiscal year.

The vehicles to be replaced will be within the age or mileage standards for replacement as prescribed by the General Services Administration. Many of them are used for patrol purposes and law-enforcement functions by employees such as park rangers and the U.S. Park Police, and often at high speeds for the apprehension of speed and other violators. They must, therefore, be in good condition to insure safety of the operator and the public. Many of the vehicles operated by the Service are used in rugged mountainous and desert terrain and under trying weather and road conditions. The geographical location of many areas, far from railheads or other populated centers where Government business is transacted, makes it mandatory to use this type of transportation.

| | |
|---|---|
| Vehicles to be purchased: | |
| Number | 118 |
| Estimated gross cost | $199,650 |
| Old vehicles to be exchanged: | |
| Number | 94 |
| Estimated allowance | $42,350 |
| Net cost | $157,300 |
| Old vehicles still to be used | 381 |

Expansion of the Service's activities under the Mission 66 program and the establishment of new park areas have brought about the need for additional passenger motor vehicles to serve protective, interpretive, and administrative functions of the areas. One of the additional vehicles requested is for the U.S. Park Police force for which an increase of 10 positions is provided in the estimate. The other 23 additional vehicles requested are all required to more nearly meet the needs of the staffs in existing areas, of which 8 are for areas activated since the beginning of Mission 66 and 15 are for pre-Mission 66 areas.

The language will permit the Service to purchase special features of equipment for vehicles used for law enforcement or police-type activities exceeding in cost the maximum amount established for the purchase of any passenger motor vehicle. In the discharge of its responsibilities the Service will need to purchase 50 cars equipped as police cruisers in 1965. They are required for patrolling such areas as the George Washington Memorial, Baltimore-Washington, Suitland, and Blue Ridge Parkways, and roads in the larger parks. Special features of equipment for police-type vehicles include heavy-duty front seat and upholstery, heavy-duty police-type engine, safety belts, safety padded sun visor and dashboard, special safety tires and tubes, and heavy-duty chassis, springs, shock absorbers, and alternators.

Chairman HAYDEN. Please supply for the record a table showing where the 24 new vehicles will be assigned.

Mr. HARTZOG. We will be pleased to do that, sir.

(The table referred to follows:)

*New additional passenger motor vehicles—1965 budget*

| Region and area | Number of vehicles | |
|---|---|---|
| | Automobiles | Station wagons |
| Northeast region: | | |
| Cape Cod | 3 | 1 |
| Minute Man | | 1 |
| Lincoln Boyhood | 1 | |
| Subtotal | 4 | 2 |
| Southeast region: | | |
| Blue Ridge Parkway | 2 | |
| Cape Hatteras | 3 | |
| Colonial | 1 | |
| Natchez Trace | 4 | |
| Subtotal | 10 | |
| Midwest region: | | |
| Flaming Gorge | 1 | |
| Glacier | 1 | |
| Yellowstone | 1 | |
| Subtotal | 3 | |
| Southwest region: | | |
| Lake Mead | 1 | |
| Mesa Verde | 2 | |
| Padre Island | 1 | |
| Subtotal | 4 | |
| National Capital region | 1 | |
| Total | 22 | 2 |

EMPLOYMENT OF SEASONAL PERSONNEL

Senator MUNDT. How many summertime employees do you envision to handle the visitors? You mentioned part-time seasonal employees. I am curious to know how they are selected and whether these are jobs which are available to these college students who keep writing us that they wish to work outdoors for Uncle Sam in the summer.

Mr. HARTZOG. I believe there are over 4,000 seasonal employees in the parks.

Senator MUNDT. Would it be a big job if you were to send a statement to me setting forth how many of these will be in each park?

Mr. HARTZOG. It will be a big job but we will be pleased to send it to you by letter as soon as we can.

WIND CAVE NATIONAL PARK APARTMENT CONSTRUCTION

Senator MUNDT. On page 12 of your justification you discussed the construction of employee apartments at Wind Cave National Park. What do you have in mind there?

Mr. HARTZOG. Sir, if I may I will ask Mr. Baker to answer that. This is in the region he just left.

Mr. BAKER. Thank you.

Senator MUNDT. We hate to lose him, too, but we are kind of glad he got promoted.

Mr. BAKER. Wind Cave National Park, of course, has a number of seasonal employees who are hired to work in the caves for us and so forth. It is necessary for us to provide quarters for those employees because they cannot find adequate quarters in the neighboring communities. We have had a small set of facilities there which are not adequate for the number of employees we have.

Senator MUNDT. Do you feel that what you have asked for in this budget will take care of the problem?

Mr. BAKER. I think so.

BADLANDS NATIONAL MONUMENT

Senator MUNDT. How are things going out at Badlands National Monument? Last year we appropriated some money for the purchase of some in-holdings. Are there any problems remaining out there?

Mr. BAKER. We still have a number of in-holdings. We have been trying to acquire these in-holdings by purchase, by exchanging with the Forest Service and it is a very slow process to work out an exchange but we do have quite a few acres to acquire.

Senator MUNDT. Are you making some progress?

Mr. BAKER. Yes, we are making some progress but it is very slow.

MOUNT RUSHMORE HALL OF RECORDS

Senator MUNDT. What is the status of the facility at Mount Rushmore? Are there any major projects out there that need attention? For example, part of the original plan was to call for a Hall of Records.

Mr. BAKER. Mount Rushmore facilities have been very well taken care of in the last few years. We have a new visitor center just

opened. The parking facilities have proved to be quite inadequate. So, at the present time, we are enlarging the parking area. We have a very fine program that we put on every evening. Sculptor Borglum always had in mind the idea of carving a Hall of Records, which project he started while he was still alive. I think they excavated back in the mountains some 60 feet or so. He even carved out of the rock the frame of the doorway which would lead to the hallway. The National Park Service has never considered that this project should be carried forward. We felt the interpretative facilities that we have now and will have in the second workshop will include much of the material needed in the program to tell the people how the sculptor visualized the project, the tools that he used, and so forth.

Senator MUNDT. I may be wrong but my memory leads me to believe that program in the Hall of Records went far beyond construction of the monument. The Hall of Records really was to tell of the development of the Republic. This would not be covered in the workshop.

Mr. BAKER. That is right. But this is covered to a great extent in our new visitor center, the story of America and so forth, the part that the four Presidents played in the development of America. It is our opinion that we do not need the Hall of Records. Furthermore, it would be awfully difficult to get people to that Hall of Records.

You will recall that access is by stairway. It is quite expensive. The Hall of Records, itself, would be a very expensive proposition.

### JEWEL CAVE NATIONAL MONUMENT

Senator MUNDT. Lately, I have been hearing a lot about new discoveries out in Jewel Cave. Even if parts of these reports are exciting as I have been led to believe, it seems to me this is one of the real great new attractions of the entire Park Service. I wonder if you would outline for the information of the committee just what has been discovered out there and what your plans are for the development of this new natural resource.

Mr. BAKER. Thank you, I will be very happy to do that. The Jewel Cave National Monument, at the present time, contains about 1,200 acres. We have found in the last 2 years, by a man and his wife who have been doing some exploring work for us, that we have some very new and interesting caverns which actually extend outside the present boundaries. The rooms and passageways are quite wet and we will find some very interesting formations and minerals.

Senator MUNDT. This, I take it, is an advantage instead of a disadvantage to have a wet cave?

Mr. BAKER. That is right. We will find some very interesting formations, some nice size rooms. In fact, there are two items called scintillates and magnesites which are quite unique among cave formations. There is boxwork in this cave. Boxwork is found in Wind Cave National Park, but this is still a different formation. The caves that we have explored, the caverns and so forth, go for almost 10 miles;

Senator MUNDT. As caves go, that is a pretty good size cave.

Mr. BAKER. That is a very good size cave.

Senator MUNDT. Is the cave all in the Park Service land?

Mr. BAKER. The principal part of this new discovery falls outside the national monument but within the Forest Service, but all on Government-owned land.

Senator MUNDT. I take it the transfer of that property would not be difficult with your program of coordination?

BOUNDARY ADJUSTMENT

Mr. BAKER. We will work it out with the Forest Service if possible and adjust the boundaries between the monument and the Black Hills National Forest.

Senator MUNDT. Those plans are now underway?

Mr. BAKER. We are just discussing them with the Forest Service. One of the first things we want to do is to verify our cavern surveys with our surface surveys to determine exactly where the principal caverns are in connection with the surface of the land. So, we have to make some preliminary test drillings to correlate our surface area. Once we have established these facts, then we can go ahead and make some developmental plans. Particularly we are going to have to have an access and ventilating tunnel so that people can get into the cavern part and see it, because it takes about 2½ hours' crawling to actually get back into the old Jewel Cave.

Senator MUNDT. You are thinking in terms of the new visitor center or entrance facility, however you designate it?

IMPROVEMENTS PLANNED

Mr. BAKER. We have always said that Jewel Cave, the old part of Jewel Cave, is of a primitive character. However, if the new part of the cave proves to be as interesting as we have been told by these people, then we are thinking of lighting the cave and serving it by an elevator.

Senator MUNDT. There is a tremendous amount of interest in the area. I would like to see us get started to take advantage of this great new discovery, if possible, with this appropriation bill. I wonder if you could supply for the record some estimate as to the cost of the facilities, the priority and what might be considered reasonable to be included in this appropriation bill.

Mr. HARTZOG. We will be pleased to do that.

(The information follows:)

STATEMENT ON JEWEL CAVE NATIONAL MONUMENT, SOUTH DAKOTA

Jewel Cave National Monument, in the Black Hills region, contains 1,274.56 surface acres. New and interesting caverns have been discovered which extend outside of the present boundaries into the Black Hills National Forest.

The caverns contain rooms up to a 100 feet in length with ceilings up to 60 feet in height. The rooms and passageways are damp and active which create very interesting cave formations.

The new part of the cave contains the following minerals and formations:

Manganese dioxide.
Flowstone.
Stalactites and stalagmites.
Red and plain boxwork.
Popcorn and cauliflower types of argonite.
Rimstone, geodes, and quartz crystal.
Scintillates and hydromagnesite bubbles.

The scintillates and magnesite bubbles are unique. These and other features in such variety and abundance combine to greatly enlarge the importance of Jewel Cave National Monument.

The National Forest Service is aware of the new finds and our interest in the possible adjustment of the boundaries of the monument by exchange between Forest Service and monument land.

Preliminary test drilling is required to correlate the cave and surface locations. This work we hope to accomplish this spring with the concurrence of the National Forest Service.

Following the successful completion of this correlation we would then be in a position to develop a plan for a boundary adjustment with the National Forest Service. Public lands only are involved. We are of the opinion these new portions of Jewel Cave are far superior to existing portions now open to the public. We consider these new portions should be electrically lighted and ultimately served by an elevator of about a 200-foot lift.

The first phase of the development which could be undertaken very soon after the boundaries were adjusted, and if funds were available, include the following items:

| | |
|---|---|
| 1st priority (work which must precede all other projects): | |
| Roads and trails: | |
| (a) Access road, grade, base and bituminous surface, including signs, ¾ mile | $75,000 |
| (b) Parking area | 12,500 |
| (c) Access and ventilating tunnel (5 by 7 by 200 feet) and preliminary cave trails for public use | 35,000 |
| Subtotal | 122,500 |
| 2d priority (work which would be essential to make area usable by the public on an interim basis but will require more planning): | |
| Buildings and utilities: | |
| (a) Water system including well, reservoir, and main distribution lines | 75,000 |
| (b) Sewer system | 38,000 |
| (c) Construction office and public contact station with public restrooms (to be designed to form part of permanent visitor center) | 20,000 |
| Subtotal | 133,000 |
| Total, 1st and 2d priorities | 255,500 |

The present cave is unlighted, with visitation in 1963 amounting to 17,528 via cave tours, and a total of 44,000 visitors to the monument. The new portions of the cave should prove very interesting and when fully developed we would expect a great increase in interest and visitation. This visitation could start as soon as the basic facilities outlined above were installed.

### Reproduction of Sequoia Trees

Senator Mundt. I have always been interested in these sequoia trees. I notice on page 27 you have a statement that is kind of startling. Sequoia trees have not reproduced themselves during the past 75 years. I wondered what the reason for this is. I would like to see them continue to reproduce. I think they are very attractive, very fascinating.

Mr. Hartzog. We appreciate that very much. We would, too. This is part of what is wrapped up in this $150,000 natural science and wildlife study money that we have asked for this year. These are some of the things we are faced with in national park protection.

Senator Mundt. Do you know any reason why they have quit reproducing?

Mr. Hartzog. We have not gotten any answers to these questions. This is one of the studies we would like to undertake this year.

Senator Mundt. No guesstimates.

Mr. HARTZOG. We have a guesstimate; yes, sir. I have a man here I think who can guesstimate on the subject.

### SEQUOIA GROVES

Mr. STAGNER. The Sequoia groves have been in existence for perhaps 4,000 years. It is a tree that reproduces only when there are openings in the forest and where mineral soil has been disturbed and turned up. The seeds just don't reproduce otherwise. They have to have sunlight and mineral soil. Now, in the last 75 years that these groves have been under observation we know that other trees have come up to such extent below the canopy of Sequoias in by far the largest proportion of the groves, as to prevent reseeding. Some places where trees fall down, new Sequoias will start to grow. We would like to know if this represents a necessary stage in the normal cycle of nature, or is this heavy understory an artificial situation that needs to be corrected in order to insure the preservation of the Sequoias.

Senator MUNDT. Are these trees pretty generally found around the world or is this something pretty much indigenous to that area?

Mr. STAGNER. The only native home of the giant sequoia is on the western slope of the Sierra Nevada. It is restricted now to a number of isolated groves. It is not a continuous forest, not mixed with the other trees, but scattered groves from, let us say, from about mid-California southward in separated groves. It has been reproduced from seeds in various parts of the world but this is the only place it grows naturally.

Senator MUNDT. Thank you. That is all, Mr. Chairman. Except on this report on park employees, will you put this in terms of people instead of man-hours?

Mr. MONTGOMERY. Yes, sir; we will do that.

Senator BIBLE. Mr. Chairman, first, I want to commend Mr. Hartzog for a very able maiden voyage before the Appropriations Committee. I compliment his staff, too. I think they handled themselves very well. They were very adroit and I hope accurate in answering the questions.

Senator MUNDT. That might be called damning with faint praise.

### VISITOR CENTER AT LAKE MEAD

Senator BIBLE. Some of these figures mixed me up a bit. But you did a good job. I am delighted to see you have a visitor center program for Lake Mead. Will this complete the job, $227,200?

Mr. HARTZOG. I believe this is the completion of it, Senator.

Senator BIBLE. It has not even started?

Mr. HARTZOG. No; but I meant the completion of the funding part. Here again, we are going to work with the Bureau of Reclamation on the possibility of doing some joint interpretation in the visitor center there at Lake Mead.

Senator BIBLE. That might be very well to do because this is, of course, the site of Hoover Dam.

What is the timetable on it? Do you have plans and designs already?

Mr. HARTZOG. They are being worked on now. We will be happy to supply you with a table for that for the record.

Senator BIBLE. I wish you would. Tell me what the construction period is. Do you plan to start construction in fiscal 1965? How long would it take, 120 days, 150 days? Will you supply it for the record?

Mr. HARTZOG. Thank you.

(The information referred to follows:)

TENTATIVE SCHEDULE OF CONSTRUCTION, LAKE MEAD VISITOR CENTER

| Phase of construction: | *Target date* |
|---|---|
| Completion of plans | Oct. 15, 1964. |
| Bid opening | Nov. 1, 1964. |
| Award of contract | Jan. 1, 1965. |
| Time for performance | 270 days. |
| Completion date | Oct. 1, 1965. |

If the visitor center is developed jointly with the Bureau of Reclamation, the estimated timing will be extended about 4 months.

COMPARISON OF VISITATION FUND AND STAFFING FOR CERTAIN PARK AREAS

Senator BIBLE. Likewise, I would like to have you supply for the record the visitation figures over the last 5 years for the—I want to take some typical park areas, I would say Mammoth Cave, Grand Canyon, Yellowstone, and Yosemite. Also show the annual budget over those 5 years, as well as your organizational chart as to the number of people you employed and what they did. The thing which is concerning me, I say very frankly, is that I have just returned from Clark County and last year they had 6,650,000 visitors through the Lake Mead Recreation Area. This was an increase of 25 percent over the year before. They also tell me that in this January just passed, January 1964, there were 25 percent more visitors than there were in January 1963. I want to see that this area is sufficiently manned because of the tremendous interest in the area and the tremendous number of boats there, as well as fishermen, swimmers, and campers, for overnight stays. Would you make that comparison and either supply it to me individually or for the record?

Mr. HARTZOG. We deeply appreciate it, sir. We know of your deep interest and we appreciate it. I think you would be pleased to know that we recently appointed a special management study team for Lake Mead consisting of two officials from our Washington office and two from our southwest regional office to work with Superintendent Richey and his staff to develop this whole complex of staffing that is needed there at Lake Mead.

Senator BIBLE. I am happy to hear you say that because this is a tremendous load there.

Mr. HARTZOG. That is right.

Senator BIBLE. Of course, this committee's approval of an airplane last year helps in search and rescue missions.

Mr. HARTZOG. That is right.

(The material referred to follows:)

*Comparative 5-year data on annual appropriations, permanent positions and man-years of other, fiscal years 1960–64; and annual number of visits, calendar years 1959–63*

LAKE MEAD NATIONAL RECREATION AREA

| | Calendar years | | | | |
|---|---|---|---|---|---|
| | 1959 | 1960 | 1961 | 1962 | 1963 |
| Number of visits | 2,238,000 | 2,254,200 | 2,220,000 | 2,688,700 | 3,349,600 |
| | Fiscal years | | | | |
| | 1960 | 1961 | 1962 | 1963 | 1964 |
| Annual appropriations and staffing: | | | | | |
| Management and protection: | | | | | |
| Appropriation amount | $200,184 | $253,704 | $271,437 | $345,770 | $417,000 |
| Number of permanent positions | 23 | 27 | 29 | 35 | 37 |
| Man-years of other employment | 3.4 | 3.2 | 3.6 | 4.6 | 8.8 |
| Maintenance and rehabilitation of physical facilities: | | | | | |
| Appropriation amount | $233,159 | $272,472 | $339,015 | $417,270 | $398,200 |
| Number of permanent positions | 26 | 26 | 30 | 35 | 34 |
| Man-years of other employment | 2.9 | 2.9 | 3.7 | 3.7 | 0.5 |

YELLOWSTONE NATIONAL PARK

| | Calendar years | | | | |
|---|---|---|---|---|---|
| | 1959 | 1960 | 1961 | 1962 | 1963 |
| Number of visits | 1,408,700 | 1,443,300 | 1,524,100 | 1,925,200 | 1,872,500 |
| | Fiscal years | | | | |
| | 1960 | 1961 | 1962 | 1963 | 1964 |
| Annual appropriations and staffing: | | | | | |
| Management and protection: | | | | | |
| Appropriation amount | $711,649 | $820,284 | $855,287 | $979,130 | $1,051,900 |
| Number of permanent positions | 55 | 59 | 58 | 63 | 64 |
| Man-years of other employment | 47.0 | 48.2 | 49.6 | 53.7 | 58.5 |
| Maintenance and rehabilitation of physical facilities: | | | | | |
| Appropriation amount | $1,030,231 | $1,154,890 | $1,269,002 | $1,431,590 | $1,449,500 |
| Number of permanent positions | 46 | 49 | 48 | 48 | 47 |
| Man-years of other employment | 75.8 | 79.7 | 92.5 | 107.5 | 109.4 |

## YOSEMITE NATIONAL PARK

| | Calendar years | | | | |
|---|---|---|---|---|---|
| | 1959 | 1960 | 1961 | 1962 | 1963 |
| Number of visits | 1,061,500 | 1,150,400 | 1,227,100 | 1,505,500 | 1,473,400 |
| | Fiscal years | | | | |
| | 1960 | 1961 | 1962 | 1963 | 1964 |
| Annual appropriations and staffing: | | | | | |
| Management and protection: | | | | | |
| Appropriation amount | $499,767 | $562,594 | $600,638 | $667,820 | $712,700 |
| Number of permanent positions | 41 | 44 | 46 | 49 | 49 |
| Man-years of other employment | 29.3 | 28.6 | 30.9 | 33.0 | 35.1 |
| Maintenance and rehabilitation of physical facilities: | | | | | |
| Appropriation amount | $671,432 | $707,466 | $751,007 | $810,650 | $811,700 |
| Number of permanent positions | 73 | 74 | 73 | 72 | 72 |
| Man-years of other employment | 18.3 | 28.5 | 31.5 | 36.0 | 34.6 |

## GRAND CANYON NATIONAL PARK

| | Calendar years | | | | |
|---|---|---|---|---|---|
| | 1959 | 1960 | 1961 | 1962 | 1963 |
| Number of visits | 1,168,800 | 1,187,700 | 1,253,000 | 1,447,400 | 1,539,500 |
| | Fiscal years | | | | |
| | 1960 | 1961 | 1962 | 1962 | 1964 |
| Annual appropriations and staffing: | | | | | |
| Management and protection: | | | | | |
| Appropriation amount | $310,939 | $339,137 | $353,397 | $413,790 | $420,150 |
| Number of permanent positions | 29 | 30 | 31 | 34 | 34 |
| Man-years of other employment | 11.2 | 11.5 | 12.1 | 14.1 | 15.6 |
| Maintenance and rehabilitation of physical facilities: | | | | | |
| Appropriation amount | $281,193 | $291,754 | $358,913 | $419,540 | $450,100 |
| Number of permanent positions | 25 | 26 | 28 | 34 | 35 |
| Man-years of other employment | 6.5 | 8.9 | 13.3 | 12.8 | 12.8 |

## MAMMOTH CAVE NATIONAL PARK

| | Calendar years | | | | |
|---|---|---|---|---|---|
| | 1959 | 1960 | 1961 | 1962 | 1963 |
| Number of visits | 490,300 | 519,100 | 519,300 | 569,300 | 636,100 |
| | Fiscal years | | | | |
| | 1960 | 1961 | 1962 | 1963 | 1964 |
| Annual appropriations and staffing: | | | | | |
| Management and protection: | | | | | |
| Appropriation amount | $260,655 | $297,396 | $304,182 | $336,760 | $337,200 |
| Number of permanent positions | 33 | 34 | 34 | 36 | 34 |
| Man-years of other employment | 3.2 | 10.7 | 12.8 | 13.8 | 10.2 |
| Maintenance and rehabilitation of physical facilities: | | | | | |
| Appropriation amount | $120,173 | $135,610 | $168,517 | $194,630 | $205,900 |
| Number of permanent positions | 25 | 26 | 27 | 28 | 31 |
| Man-years of other employment | 6.7 | 0.4 | 1.6 | 4.3 | 4.5 |

NOTE.—Staffing data shown above does not include that which is applicable to construction appropriations or those administrative services (Field Finance Office functions) financed from all appropriations.

LAND ACQUISITION CONDEMNATION POLICIES

Senator BIBLE. This could also be supplied for the record or through this medium you might like to discuss it with your people. I am concerned about the condemnation policies of the Park Service insofar as they concern national parks and lake shores and seashores. It seems to me there are some conflicts and we have some problems in the legislative committee. I don't want to use the Appropriations Committee to determine that.

I wish you would get with your solicitors and get with me and see if we can't find out what the Park Service policy is on this very troublesome question of condemnation.

Mr. HARTZOG. We certainly shall get with you on the matter.

Senator BIBLE. Particularly on the unimproved lands.

Senator MUNDT. In that connection, I would like to congratulate the gentleman at the end of the table who said 80 percent of your acquisitions are from voluntary sellers which, I think, is wonderful because we have had a lot of trouble with the program of the Corps of Engineers in condemnation. When you have to take land away from people especially for recreational purposes you create a lot of unhappy folks.

Senator BIBLE. That was a refreshing and revealing statistic. Thank you, Mr. Chairman.

Chairman HAYDEN. Is there anything further? If not, we will stand in recess until 10 a.m. on Tuesday, February 25, to take up the Bureau of Mines and the Geological Survey.

Mr. HARTZOG. Thank you for your courtesy, Senator.

(Whereupon, at 12:45 p.m., Monday, February 24, 1964, the committee recessed to reconvene at 10 a.m., Tuesday, February 25, 1964).

# DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1965

TUESDAY, FEBRUARY 25, 1964

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, D.C.*

The subcommittee met at 10 a.m., pursuant to recess, in room 1223 of the New Senate Office Building, Hon. Carl Hayden (chairman) presiding.

Present: Chairman Hayden, Senators Bible, McGee, Bartlett, and Young.

## DEPARTMENT OF THE INTERIOR

### VIRGIN ISLANDS CORPORATION

### STATEMENT OF JOHN J. KIRWAN, ASSISTANT DIRECTOR OF TERRITORIES, DEPARTMENT OF THE INTERIOR

#### BUDGET PRESENTATION FOR 1965

Senator BIBLE (temporarily presiding). The Subcommittee on Interior Department Appropriations will come to order.

I am pinch hitting in the absence of Chairman Hayden. We are expecting him momentarily.

Our first hearing this morning is on the Virgin Islands Corporation.

We have as our witness our very distinguished friend, John J. Kirwan.

#### JUSTIFICATIONS

We will be happy to hear from you, Mr. Kirwan.

First, there will be placed in the record the justification for the Virgin Islands Corporation for the fiscal year 1965. The statement indicates that no funds are being requested during the coming year.

However, the Virgin Islands Corporation does request a limitation on administrative expenses of $156,000 for the next fiscal year. This is a decrease of $30,000 under the authorization of the current law.

(The justification referred to follows:)

#### HIGHLIGHT STATEMENT

The principal purpose of the Virgin Islands Corporation is to develop the economy of the Virgin Islands, which it has done largely through its sugar program, its electricity and water production program, and its real estate management program.

The Vicorp sugar program consists of growing about 70 percent of all the sugarcane grown in the islands, and grinding 100 percent of all the cane grown into

raw sugar and molasses. The sugar is sold on the U.S. mainland and the molasses is sold for rum distillation in the Virgin Islands. Of all rum produced in the Virgin Islands, about 40 percent of the molasses is supplied by Vicorp, and the remaining 60 percent is purchased by distillers in Puerto Rico and the British West Indies.

The Board of Directors on August 16, 1963, voted to sell its entire power and water-producing system to the Government of the Virgin Islands, at the full appraised market value of such system. It took this step partly because it had been unable to secure sufficient funds for necessary expansion of the system, but largely because of its conviction that the providing of water and power was a local responsibility that the local government was both willing and able to assume at this time. Final transfer is expected to take place by the end of fiscal year 1964.

The real estate responsibilities of Vicorp consist of its managing the former Navy Submarine Base and Marine Corps Air Facility, both on St. Thomas. In addition to the operation of the only airport on St. Thomas, this responsibility consists largely of managing the hundred-odd commercial properties, both improved and unimproved, into which these excess military bases have been subdivided. The Department of the Navy is now in the process of disposing of the facilities, and it is expected that all of these properties will go to the Government of the Virgin Islands, for use as a site of the new College of the Virgin Islands, as the civilian airport, and as revenue-producing property related to the airport.

Once these transfers are made, the only program for Vicorp will be its sugar program, which the Board of Directors has voted to terminate as of June 30, 1966. It is not anticipated that Vicorp will have to request any additional funds from the Congress in the coming years.

*Contributions, Virgin Islands Corporation*

| | |
|---|---|
| Appropriation, 1963 | |
| Transferred from "Internal Revenue Collections for Virgin Islands" | $480,000 |
| Total available, 1963 | 480,000 |
| Appropriation, 1964 | |

SUMMARY OF INCREASES AND DECREASES, 1965

Not applicable.

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| 1. Operating losses | $480,000 | | | | | |

No funds are being requested in the budget year.

*Revolving funds, Virgin Islands Corporation*

| | |
|---|---|
| Appropriation, 1963 | $200,000 |
| Appropriation, 1964 | |

SUMMARY OF INCREASES AND DECREASES, 1965

Not applicable.

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| 1. Power program | $200,000 | | | | | |

No funds are being requested in the budget year.

*Loans to operating fund, Virgin Islands Corporation*

| | |
|---|---|
| Appropriation, 1963 | |
| Supplemental appropriation, 1963 | $200,000 |
| Total available, 1963 | 200,000 |
| Appropriation, 1964 | |

SUMMARY OF INCREASES AND DECREASES, 1965

Not applicable.

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| 1. Salt water distillation | $200,000 | | | | | |

No funds are being requested in the budget year.

LANGUAGE CHANGE

It is requested that the limitation on "Administration expenses" be set at $156,000 for fiscal year 1965. This is a decrease of $30,000 under the present current year authorization.

*Statistics for 1965 budget estimates*

| | 1963 actual | 1964 estimate | 1965 estimate |
|---|---|---|---|
| LOAN PROGRAM | | | |
| Average loans outstanding for full year | $36,560 | $7,000 | $7,000 |
| Interest rate (percent) | 5 | 5 | 5 |
| Income | $1,828 | $350 | $350 |
| SUGAR PROGRAM | | | |
| Growing and harvesting operations: | | | |
| Acres harvested | 2,594.5 | 2,951 | 1,696.5 |
| Tons harvested | 107,136.150 | 120,300 | 57,400 |
| Tons per acre | 41.29 | 40.77 | 33.83 |
| Cost per ton | $7.00 | $6.76 | $7.47 |
| Manufacturing operations: | | | |
| Purchased cane: | | | |
| Acres harvested | 1,532.4 | 1,432 | 1,432 |
| Tons purchased | 44,063.625 | 38,700 | 35,800 |
| Tons per acre | 28.75 | 27.03 | 25.00 |
| Cost per ton | $9.78 | $8.35 | $8.30 |
| Raw sugar production: | | | |
| Tons of cane ground | 151,199.775 | 159,000 | 93,200 |
| Sugar yield (percent) | 10.34 | 10 | 10 |
| Number of tons sugar, physical weight | 15,353.942 | 15,900 | 9,320 |
| Profit or loss (−) per ton of sugar manufactured: | | | |
| Income: | | | |
| Sugar | $145.92 | $140.00 | $140.00 |
| Molasses | 9.59 | 7.51 | 7.00 |
| Subsidy payment (Virgin Islands Corporation) cane | 7.85 | 8.15 | 7.08 |
| Total | 163.36 | 155.66 | 154.08 |
| Expense: | | | |
| Production cost | 119.50 | 119.81 | 131.76 |
| Shipping and selling expenses, sugar | 10.47 | 10.50 | 10.52 |
| Administrative, interest, and other allocated expenses | 27.02 | 29.06 | 50.96 |
| Total | 156.99 | 159.37 | 193.24 |
| Net profit or loss (−) | 6.37 | −3.71 | −39.16 |
| POWER PROGRAM | | | |
| Generating capacity (kilowatts) | 19,212 | 21,462 | |
| Miles of distribution lines | 598.88 | 623.9 | |
| Number of consumers | 11,565 | 12,500 | |
| Kilowatt-hours sold | 48,514,051 | 57,000,000 | |
| Average kilowatt-hours per consumer | 4,195 | 4,560 | |
| Profit or loss (−) per kilowatt-hour (cents): | | | |
| Income | 4.47 | 4.35 | |
| Expense | 4.18 | 3.85 | |
| Net profit | .29 | .50 | |
| WATER PROGRAM | | | |
| Capacity (gallons per day) | 309,968 | 310,000 | |
| Number of gallons produced | 105,048,000 | 105,048,000 | |
| Number of gallons sold | 98,197,777 | 98,200,000 | |
| Profit or loss (−) per thousand gallons: [1] | | | |
| Income | 2.52 | 2.36 | |
| Expense | 2.30 | 2.15 | |
| Net profit | .22 | .21 | |

[1] Based on cost and income for 1st anniversary period, ending June 30, 1963 (17 months).

## UTILIZATION AND CONTROL

### *Manpower*

*Review of manpower utilization.*—Personnel are assigned to programs to which they can honestly make the most contribution, either in the form of know how or in accumulating useful data needed for study and the future success of the program. Under this procedure those with the greatest potential and capability are given an opportunity to utilize such skills for the greatest good. In this manner management gradually obtains the most for its dollars by accomplishing its objective at the lowest possible price.

*Workload study.*—Experience and time study have clearly established the normal number of man-hours required to perform routine as well as specialized duties. This can be accomplished only if the right man is assigned at the right place. This point receives particular consideration because it plays a vital role in completing a first-class job in the shortest possible period. This has been the key principle used in setting up controls on adequate staff requirements.

*Automatic data processing.*—The introduction and use of punch card equipment with computer capability has provided a great opportunity for savings in man-hours and dollars. Significant benefits have been realized primarily where these equipment are adaptable to several types of applications formerly hand processed and now require the utmost speed and accuracy with the retention of the initial data for future tabulation and analysis. The expansion of this system provides the accomplishment of a greater volume of work with a smaller staff.

*Financial management.*—Ceilings have been established on obligations and expenditures for power distribution facilities. This type of control has made it possible to avoid excessive investment beyond the ability of available resources and has thereby released working capital for other activities. This procedure has forced the acquisition of priority items which are urgently needed, and its success is considered a great contribution to the financial effort, primarily because it has eliminated waste. The accounting system is under constant review for simplification. There is also a favorable reception for suggestions which tend to improve the system of record keeping and make its application more meaningful.

Senator BIBLE. Mr. Kirwan, we will be delighted to hear from you. I have known for a long time of your splendid work in this field. I commend you on it.

STATEMENT OF JOHN J. KIRWAN, ASSISTANT DIRECTOR OF TERRITORIES

Mr. KIRWAN. Thank you, Mr. Chairman. I have a prepared statement.

Senator BIBLE. That will be incorporated in full in the record, and you may highlight it in any way you desire.

(The statement referred to follows:)

SUMMARY OF ACTIVITIES AND PLANS OF THE CORPORATION

The Virgin Islands Corporation is not seeking any funds at this time from the Congress, and in fact does not presently foresee any necessity for seeking funds in the future. The Corporation's life will expire in any event on June 30, 1969, and sooner should its Board of Directors terminate its existing programs and dispose of its assets in accordance with existing law.

There is a present limitation of $186,000 set on administrative expenses, and we are now proposing that this be reduced by $30,000 to the sum of $156,000, in contemplation of reduced administrative costs in fiscal year 1965.

Vicorp sought from the Congress in the Supplemental Appropriations Act, 1963 (Public Law 88–25) $3,350,000 for the construction of new electrical generating units on St. Croix and St. Thomas. The House allowed such an amount in reporting out the bill, but it recommended the immedate disposal of the entire electrical and water system, after the needed expansion was contracted for, to the local government at its full appraised value.

The Senate in considering such measure disallowed all funds for this purpose, and noted that it was informed that should such funds be disallowed that Vicorp then would seek to dispose of the system to the local government. The conferees upheld the Senate position.

Accordingly, the Board of Directors on August 16, 1963, voted to sell the entire system to the local government, at 100 percent of appraised value, as recommended by the House committee and as foreseen by the Senate committee. To accomplish this, it declared the system excess to the General Services Administration, which agency is now in the process of appraising it in order to ascertain its full market value, and expects to complete this sale at such price to the local government by about May 1, 1964, in accordance with the Federal Property and Administrative Services Act of 1949, as amended.

The Legislature of the Virgin Islands, on December 12, 1963, voted to purchase the system when it is tendered to it.

Meanwhile, the local government is going ahead with expansion plans, since the provision of additional generating capacity for St. Thomas is now long overdue. The local government expects to let a contract within the next few weeks for a new 7,500-kilowatt steam generator, and hopes to have it installed within a period which will hold to a minimum, hopefully no more than 3 months, the period when St. Thomas will be without firm power.

The Board of Directors voted in May 1963, to terminate all sugar operations on June 30, 1966, in view of consistent losses realized in the program without sufficient offsetting social benefits to the community at large. In the past 3 years more than $1 million in losses have been charged off against funds which would otherwise have gone to the local government for use in its capital improvement program as matching funds. In view of the very small number of local growers who have a substantial stake in sugar production, and the fact that all cane cutting must now be done with imported alien labor each year, it is felt that the losses incurred are all out of proportion to the local benefits realized.

Out of consideration for those local growers who may have planted sugarcane recently, which cane could continue to be harvested for several years, and to give everyone now involved in any way with sugar sufficient time to disengage gradually, the Board of Directors has provided for this full 3-year phasing out period.

The decision to go out of sugar, taken in May 1963, was made without regard to whatever disposition or use might subsequently be made of the land now being used for sugar production. Vicorp does have pending before it a proposal to lease some of its land, 1,700 out of a total of 3,400 acres, for citrus cultivation. It has not yet come to any decision with regard to such proposal, but I wish to make clear that the decision with regard to sugar termination in 1966 was made well before, and quite independently of, any decision with regard to the pending citrus proposal.

### Expiration of the Virgin Islands Corporation

Mr. Kirwan. The Corporation not only does not seek funds this year, it presently does not foresee a need to seek any in the future.

As you know, Mr. Chairman, it expires by law on June 30, 1969.

It presently is carrying on only three significant programs. One is the generation of electric power and the distillation of water. The second is the production of sugar from grinding sugarcane in the islands. And the third is managing certain naval properties on St. Thomas.

Last year the Corporation sought from Congress $3,350,000 for new generating equipment. The House allowed us this money, but told us to sell the system to the local government as soon as the expansion was contracted for.

The Senate did not allow the money, but said it understood that we would dispose of the system if we were unsuccessful in getting funds.

### Sale of Distillation System

The conferees upheld the Senate position. Therefore, in August of 1963, the Board of Directors of Vicorp voted to sell the entire electrical and water distillation system to the local government at its full appraised market value.

We have declared the system excess to GSA, therefore, GSA is having it appraised. We expect the sale to be finally consummated about the 1st of May. That will take us out of the power and water business.

### Phasing Out Sugar Operations

Last May the Board of Directors of the Corporation also voted to close all sugar operations, effective June 30, 1966. The 3-year phaseout period was set to allow growers and other people on St.

Croix interested in sugar enough time to disengage in an orderly manner from the sugar business. We have lost money at the average rate of about a third of a million dollars a year in sugar over the past decade.

There are some benefits to the local people from our staying in sugar, but on balance our view is that the benefits are in no way commensurate with the cost.

And this cost, incidentally, has not been borne in the past 3 years by the Federal Government, but the incidence of the loss has fallen upon the local government. Over a million dollars in the past 3 years has been taken out of matching funds which otherwise would have gone to the local government but for the sugar losses.

PROPOSED CITRUS LEASE

The Board of Directors of Vicorp has pending before it, and will vote on it at its next meeting in about 3 weeks, a proposal to lease about half of the land presently in sugar for citrus purposes. I would like to make clear that the Board, (1) has not already decided whether to enter into this lease, and (2) in any event it decided to go out of sugar well before and in a context where the citrus proposal had nothing to do with the decision on getting out of sugar.

REDUCTION OF ADMINISTRATIVE EXPENSES

We do, lastly, Mr. Chairman, suggest that our ceiling on administrative expenses be reduced $30,000, from $186,000 to $156,000, due to a lessening of administrative expenses in the coming year due to disposing of power facilities.

That is all, Mr. Chairman.

Senator BIBLE. That is a very fine statement. And it is refreshing to find one agency of the Government that is reducing its administrative expenses.

What would your expense be at $156,000? How many people would you have with Vicorp?

PERSONNEL

Mr. KIRWAN. Well, with Vicorp itself there are several hundred, but the administrative ceiling only applies to about 18 people. A great portion of the $156,000 in the coming year will go for overhead in addition to personnel cost. But we only have 18 on the administrative side. The bulk of our strength is in power operation, distillation plant operation, and sugar growing and milling operations.

Senator BIBLE. Where are these 18 located? Are some in Washington and some in the islands?

Mr. KIRWAN. None in Washington, all in the Virgin Islands, most of them on St. Croix, but some on St. Thomas.

Senator BIBLE. None of this in Washington is chargeable to this $156,000?

Mr. KIRWAN. No.

Senator BIBLE. A very fine statement; thank you very much. Senator Young?

### Operation of Power Facilities

Senator YOUNG. Who is taking over the operation of the power facilities?

Mr. KIRWAN. The government of the Virgin Islands itself is acquiring our power system, both generation and distribution.

### Sugar Industry Operation

Senator YOUNG. And the sugar industry, too?

Mr. KIRWAN. No. It is our present intention to operate the sugar business through 1966. The Corporation itself grows 71 percent of all the sugarcane grown, and we grind 100 percent of all the cane ground. We intend to continue doing this through 1966, then we will stop grinding as far as the Corporation is concerned. At that time we will sell the sugar mill, and if any buyer wants to continue in the business, we will make arrangements for him to use the site and the mill in place.

If no buyer wants it, it will be sold off site.

### Sale of Power Facilities

Senator YOUNG. Are you selling the powerplant, the water facilities, on a bid basis?

Mr. KIRWAN. No, at its appraised value, but it is not a bid basis. The foreseen purchaser is the government of the Virgin Islands. The GSA has hired a firm of outside engineers in New York to appraise the system. When they finish appraising it, the system will be offered to the local government at exactly the appraisal price, no more and no less. So it is not negotiated in that sense, but it is not advertised.

Senator YOUNG. You haven't arrived at a price yet?

Mr. KIRWAN. No, we have not. The appraisal is quite a comprehensive matter. It is taking a team of five men 10 weeks to complete it.

Senator YOUNG. Is this on terms?

Mr. KIRWAN. Yes. It is our hope that GSA— and GSA is handling the sale and not Interior—it is our hope and expectation that GSA will give the local government between 10 and 20 years to pay out at probably about 4 percent interest on the unpaid balance.

Senator BIBLE. The Senator from Alaska.

Senator BARTLETT. Mr. Kirwan, it is my thought that your suggestion that the administrative budget be reduced will be honored more quickly than any money request made to this committee for a long while.

Does the government of the Virgin Islands have money in the treasury now for downpayment on the electrical and water system?

### Virgin Islands Government Purchase of Power Facilities

Mr. KIRWAN. Yes, Senator Bartlett. The government of the Virgin Islands has earmarked about a million and a half dollars from funds it otherwise would have spent this year on its normal capital improvement project to make up both the downpayment on the present system and also to make up the downpayment on the next-needed unit in the generating system.

Senator BARTLETT. Are they operating on a balanced budget?

Mr. KIRWAN. They are required to by law. Until just now they have not had bonding authority, they received it about 2 months ago from the Congress, therefore, they inevitably had to operate on a balanced budget basis.

### CONTRIBUTION BY FEDERAL GOVERNMENT

Senator BARTLETT. Is there a direct contribution made to the treasury of the Virgin Islands by the Federal Government?

Mr. KIRWAN. There is no direct contribution, Senator. I would like to elaborate briefly to answer that, because the government of the Virgin Islands does receive two fiscal benefits from the Federal Government, and while neither is a direct contribution, they are both extremely important. One is that the equivalent of Federal income taxes collected in the Virgin Islands remains there rather than being deposited in the Treasury.

Second——

Senator BARTLETT. Let me interrupt right there. It remains there and is turned over to the local government?

Mr. KIRWAN. Correct, it is paid in directly by [the taxpayers individually to the local government and is appropriated by the local legislature. It isn't run through the Federal system at all.

Senator BARTLETT. Somewhat similar to the situation in Puerto Rico?

Mr. KIRWAN. Exactly. The origin of the law is a little different, but in practice is works out the same way.

### TAXES COLLECTED ON VIRGIN ISLANDS PRODUCTS

The second great fiscal advantage is that excise taxes collected in the United States on products of the Virgin Islands—and as a practical matter, about 99.5 percent of it is rum—are remitted by operation of substantive law directly to the treasury of the Virgin Islands; they are not appropriated, there is no necessity for that, because the Congress in 1954 provided that whatever amount would happen to be collected each year would be automatically remitted by the Treasury Department to the local government, with the sole requirement that the local government itself raise at least that much money in local taxes.

Since the local government for the past 5 or 6 years has always raised more, the matching requirement is fully met.

Senator BARTLETT. Over 50 percent of the tax revenues, then, is locally generated?

Mr. KIRWAN. Considering the local income tax payments as truly local, yes, Senator Bartlett.

### VIRGIN ISLANDS COMPANY

Senator BARTLETT. How long has the Virgin Islands Corporation been in existence?

Mr. KIRWAN. The Corporation per se has been in existence since 1949. It succeeded, however, a predecessor Virgin Islands Company that goes back to about 1934.

EMPLOYMENT AFTER CORPORATION PHASEOUT

Senator BARTLETT. You said that it has several hundred employees. Will these go into private employment or be employed by the local government?

Mr. KIRWAN. Over half will go directly to the local government as a practical matter when it takes over the power and water system. The local government has already indicated its intention of taking over wholly without change all of our employees. And our employees generally have indicated a desire to work for the local government. So we see very little personnel dislocation attendant upon the sale of the power and water system.

Now, where the sugar is concerned, we are dealing with three types of employees. The Virgin Islands Corporation during the cane-cutting season from January to May imports about 600 alien laborers from the British islands to the south of us. These are purely temporary alien laborers. Of course, we just won't employ them after 1966. We employ full time 68 employees at the sugarmill. When the sugarmill is sold, which is presently foreseen for 1966, if it is dismantled and sold offsite these 68 people will have to be hired elsewhere.

HARVEY ALUMINUM CO. JOB OPENINGS AND EMPLOYMENT

We have asked the Harvey Aluminum Co. which will be coming into production on the same island at about the same time, to give these permanent employees of ours first crack at jobs opening up for which they are either trained or for which they could be trained.

And Harvey has said they would cooperate with us.

We have in addition about 80 full-time fieldworkers in the sugarfield and the same provision with Harvey would be made with regard to these people.

Senator BARTLETT. And Harvey is agreeable to doing this?

Mr. KIRWAN. To doing it in principle. Now, there could be a given man who either is untrainable or who is not but broadly speaking, we expect to be able to place the bulk of our about 150 to 250 employees who would lose permanent employment due to the closing down of sugar in 1966 either by going over to Harvey, or alternatively, if the Corporation does lease land for citrus production, then there will be a substantial replacement of field agricultural crop coming into the picture again about the same time as we are closing down on sugar.

Senator BARTLETT. So you have no considerable worries about the possibility of unemployment as a consequence of what you plan to do?

Mr. KIRWAN. That is correct, Senator.

LAND DEVOTED TO SUGAR RAISING

Senator BARTLETT. How many acres devoted to sugar raising are controlled or owned by the Virgin Islands Corporation?

Mr. KIRWAN. About 2,100.

Senator BARTLETT. How much of this is used for sugar raising?

Mr. KIRWAN. I will have to put it this way, Senator. We grow 71 percent of all the sugarcane.

Senator BARTLETT. That answers it sufficiently.

Mr. KIRWAN. Our land is a little more productive, and we farm it a little more intensively, so I would say we have about 65 percent of the land.

LAND LEASE FOR CITRUS RAISING

Senator BARTLETT. You spoke of a proposal to lease this land for citrus raising?

Mr. KIRWAN. Right, Senator.

Senator BARTLETT. All of it?

Mr. KIRWAN. We own 3,400 acres of land, of which about 2,100 are in sugar. We would lease 1,700 acres of those 2,100 acres. Of the 1,700 acres we would require that 1,500 be devoted to citrus and the remaining 200 would be used for administrative buildings, housing sites, the end purpose of which would be devoted to citrus.

Senator BARTLETT. Is it your view that more economic benefits would be derived from the growing of citrus fruits than sugar?

Mr. KIRWAN. It is our view that tremendously more; it can be more intensively cultivated, the end product is more valuable, the market is better, there is greater and better employment in the facilities that would be established in the Virgin Islands to process it, and I would say most important of all, there would be a taxable asset in the form of private investment in the Virgin Islands that would enable the local government to get much more out of taxes on this whole enterprise than any of the benefits Vicorp is able to give locally through its sugar production.

Senator BARTLETT. Did you say that you have an offer for this land which is now being negotiated but no determination has been reached?

Mr. KIRWAN. That is correct. We have what we in the management of the Corporation regard as a very attractive offer, but it will be presented to the Board of Directors within about 3 or 4 weeks, and, of course, we abide by the pleasure of the Board.

Senator BARTLETT. Thank you.

WATER DISTILLATION PROJECT

Senator BIBLE. May I ask Mr. Kirwan one additional question. How has this water distillation project worked out in the Virgin Islands?

Mr. KIRWAN. The water distillation has worked out from all but one point of view. I don't want to magnify the last point. Let me take it first so I will get it out of the way.

Since we built the plant the price of barged water from nearby Puerto Rico has fallen to the point where today we could probably get water more cheaply through barging it than distilling it.

Having said that, however, I can say that the plant has been a wonderful success in that it has a design capacity of 275,000 gallons a day, and we have been running at 325,000.

Secondly, as late as the Christmas holidays, we had a great deal of trouble with barging. We had two tugs and two barges go out of commission, and if it hadn't been for the distillation we would have run out of water on St. Thomas during that period.

So we feel that it is important to have that amount of production on the island which is independent of hurricanes and tugs.

Senator BIBLE. Is it underground water or does it come right out of the ocean?

Mr. KIRWAN. The water from the plant comes right out of the ocean.

Senator BIBLE. Do you have a cost figure on production per thousand gallons?

COST OF DISTILLED WATER

Mr. KIRWAN. Yes, Senator. The cost figure attributable to the first 18 months of our operation we say is $2.32 a thousand. But I want you to know, this is not comparable to the cost reportable by the Office of Saline Water, because the Office of Saline Water costs its operations on an increment amount basis, so that if it were running our plant it would only charge to distilled water those costs that would not have been incurred on the power side alone.

We take each cost, for example, each item of equipment that makes a contribution on both power and distilled water, and we compute the costs on a pro rata basis. However, our costs are $2.32 a thousand, and we estimate that the Office of Saline Water for the same operation would probably report a cost of perhaps $1.75 or perhaps $1.65 a thousand. So that the costs I stress are not comparable.

Senator BIBLE. This is still high-cost water as we look at it?

CAPACITY OF THE PROJECT

Mr. KIRWAN. We have a production, nameplate capacity of 275,000 a day and actual capacity of 325,000. At relatively small additional cost, namely, $200,000, we can add a couple of more flash units and come up to a daily production of half a million gallons at relatively little additional outlay. That will bring our estimated, even under our system, costs down to about $1.75 a thousand, and under OSW, down near $1 a thousand. We are ready to do that, and this committee allowed $200,000 to do it when we made the decision to sell the entire system, and therefore we deferred this capital betterment. But it would be easy for us, in other words, to get our cost down to a more respectable figure.

NATIONAL INTEREST IN THE PROJECT

Senator BIBLE. All of these breakthroughs I know interest the Chairman and Senator Young and me, because we are in short water supply out West, and every breakthrough that we have is of great assistance. You show a tremendous facility in answering all these questions.

Senator BARTLETT. Do not forget that half Alaska is arid.

Senator BIBLE. I thought you had glaciers running all over the place.

But it could be helpful even in Alaska.

I very much appreciate your testimony, Mr. Kirwan. It is very competent.

(At this point, Chairman Hayden entered the hearing room.)

Chairman HAYDEN. Thank you, Mr. Kirwan.

## THE ALASKA RAILROAD

### STATEMENT OF EDWIN M. FITCH, ASSISTANT TO THE GENERAL MANAGER, ACCOMPANIED BY DALE L. ROTHROCK, FINANCE OFFICER, DEPARTMENT OF THE INTERIOR.

NARRATIVE JUSTIFICATION OF PROGRAMS AND FINANCING

The Alaska Railroad has submitted a narrative justification of its proposed program for 1965 and its estimated financing for the Alaska Railroad. This summation will be printed in the record.

(The justification referred to follows:)

Proper care for and custody of railroad properties and the maintenance of high standards of transportation service will again be primary objectives for the budget year. Expenditures for operation, maintenance, and repair will be gaged, to the extent practicable, by the rate of revenues to avoid impairment of working capital.

Consolidations of positions, improvements in supply operations, increased use of mechanical devices in freight handling and construction, results of which will be noticeable in the current year, will be continued in 1965.

The railroad is not seeking a direct appropriation. The annual appropriation acts heretofore have made revenues and other receipts available for operating and maintenance expenses; capital improvements have been financed solely from these sources since 1956. Exhibit A follows with detail of operating revenues and expenses as summarized on the revenue, expense, and retained earnings statement; total expenses on this exhibit are reduced to funded costs as shown on the program and financing schedule. Exhibit B sets forth the actual outlay for capital improvements in 1963; the estimates for 1964, including carryover authorizations; and new authorizations sought for 1965, together with the balance of carryover authorizations. Capital additions by transfers without exchange of funds appear on Exhibit C.

EXHIBIT A.—*Actual and estimated operating revenues and expenses*

[In thousands of dollars]

| | 1963 actual | 1964 estimate | 1965 estimate |
|---|---|---|---|
| REVENUES | | | |
| Rail line operations: | | | |
| Rail line: | | | |
| Freight | 11,691 | 11,833 | 11,833 |
| Passenger | 382 | 395 | 395 |
| Mail | 63 | 63 | 63 |
| Express | 25 | 25 | 25 |
| Wharfage and handling | 922 | 922 | 922 |
| Docking privileges | 70 | 70 | 70 |
| Equipment rentals | 131 | 131 | 131 |
| Switching | 239 | 239 | 239 |
| Storage, freight and passenger | 6 | 6 | 6 |
| Demurrage | 11 | 11 | 11 |
| Communications facilities | 235 | 235 | 235 |
| Unit rail boxes | 176 | 176 | 176 |
| Baggage | 1 | 1 | 1 |
| Sleeping car | 6 | 6 | 6 |
| Rentals, special equipment | 177 | 177 | 177 |
| Other | 30 | 30 | 30 |
| Revenue, rail line | 14,164 | 14,320 | 14,320 |
| Incidental: | | | |
| Dormitories | 3 | 3 | 3 |
| Messhouses | 68 | 70 | 70 |
| Hotels | 7 | 7 | 7 |
| Sale of power and steam | 10 | 10 | 10 |
| Buildings | 23 | 23 | 23 |
| Equipment | 13 | 13 | 13 |
| Reimbursements, work performed for others | 199 | 200 | 200 |
| Sales of noninvested property | 73 | 40 | 40 |
| Gain on inventory adjustments—current year | 7 | | |
| Other income | 4 | 4 | 4 |
| Revenue, incidental | 407 | 370 | 370 |
| Total operating revenue, rail line operations | 14,571 | 14,690 | 14,690 |
| Other programs: | | | |
| Buildings | 47 | 47 | 47 |
| River boats and related facilities | 74 | 60 | 60 |
| Land and other nonoperating property | 170 | 173 | 173 |
| Gain on sale of invested property | 1 | | |
| Interest earned | 30 | 30 | 30 |
| Total revenue, other programs | 323 | 310 | 310 |
| Total revenue | 14,894 | 15,000 | 15,000 |

EXHIBIT A.—*Actual and estimated operating revenues and expenses*—Continued

[In thousands of dollars]

| | 1963 actual | 1964 estimate | 1965 estimate |
|---|---|---|---|
| EXPENSES | | | |
| Rail line operations: | | | |
| Maintenance of way and structures: | | | |
| Superintendence | 215 | 215 | 215 |
| Maintenance of roadway and track | 1,239 | 1,240 | 1,240 |
| Maintaining track structures | 40 | 45 | 45 |
| Maintaining auxiliary structures | 210 | 214 | 214 |
| Dismantling retired nondepreciable property | 35 | 35 | 35 |
| Other road and structure expense | 10 | 6 | 6 |
| Removing snow, ice, and sand and car cleaning | 218 | 230 | 230 |
| Retirements of nondepreciable property | 85 | 80 | 80 |
| Section mess operation | 12 | 12 | 12 |
| Depreciation | 705 | 735 | 735 |
| Total, maintenance of way and structures | 2,768 | 2,812 | 2,812 |
| Maintenance of equipment: | | | |
| Superintendence | 164 | 164 | 164 |
| Repairs to shop and powerplant machinery | 23 | 23 | 23 |
| Repairs to locomotives | 483 | 485 | 485 |
| Repairs to freight train cars | 292 | 292 | 292 |
| Repairs to passenger train cars | 121 | 121 | 121 |
| Repairs to freight train power cars | 25 | 25 | 25 |
| Repairs to work equipment | 77 | 77 | 77 |
| Repairs to roadway machines | 284 | 285 | 285 |
| Repairs to special equipment | 24 | 24 | 24 |
| Repairs and operation of automotive trailing equipment | 18 | 18 | 18 |
| Shop expenses | 497 | 497 | 497 |
| Locomotive expenses | 473 | 473 | 473 |
| Train expenses | 247 | 247 | 247 |
| Repairs to unit rail boxes | 16 | 20 | 20 |
| Repairs and maintenance to URB appurtenances | 17 | 17 | 17 |
| Amortization of leased locomotive costs | 21 | 21 | 21 |
| Locomotive expenses—Seward | 7 | 7 | 7 |
| Depreciation | 1,040 | 1,037 | 1,037 |
| Total, maintenance of equipment | 3,827 | 3,833 | 3,833 |
| Traffic: | | | |
| Traffic expense | 142 | 142 | 142 |
| Advertising and publicity expense | 6 | 8 | 8 |
| Total, traffic | 148 | 150 | 150 |
| Transportation service: | | | |
| Superintendence | 155 | 155 | 155 |
| Station operations | 1,555 | 1,572 | 1,572 |
| Yard expenses | 171 | 175 | 175 |
| Casualty damages and expenses | 23 | | |
| Snow removal service | 25 | 35 | 35 |
| Hire of freight cars | 103 | 103 | 103 |
| Loss and damage claims | 100 | 60 | 60 |
| Locomotive expenses | 779 | 790 | 790 |
| Train expenses | 1,012 | 1,020 | 1,020 |
| Special agents | 58 | 58 | 58 |
| Safety engineer | 24 | 24 | 24 |
| Hire of unit rail boxes | 101 | 105 | 105 |
| Custodial services | 35 | 35 | 35 |
| Seward dock: | | | |
| Superintendence | 25 | 25 | 25 |
| Office expenses | 82 | 82 | 82 |
| Longshoring expenses | 1,171 | 1,200 | 1,200 |
| Operating expenses | 105 | 110 | 110 |
| Maintenance and repair expenses | 71 | 75 | 75 |
| Yard expense, Seward | 221 | 225 | 225 |
| Hire of special equipment | 132 | 135 | 135 |
| Protective service | 31 | 31 | 31 |
| Depreciation | 148 | 148 | 148 |
| Total, transportation service | 6,127 | 6,163 | 6,163 |

EXHIBIT A.—*Actual and estimated operating revenues and expenses*—Continued

[In thousands of dollars]

| | 1963 actual | 1964 estimate | 1965 estimate |
|---|---|---|---|
| EXPENSES—continued | | | |
| Rail line operations—Cootinued | | | |
| Communications system operation and maintenance: | | | |
| Superintendence | 30 | 30 | 30 |
| Signals, interlockers, and crossing protection | 6 | 7 | 7 |
| Railroad communications systems maintenance | 29 | 29 | 29 |
| Railroad communications systems maintenance—radio | 16 | 16 | 16 |
| Joint maintenance of communications systems | 157 | 157 | 157 |
| Other communications expense | 4 | 4 | 4 |
| Depreciation | 97 | 97 | 97 |
| Total, communications system operation and maintenance | 340 | 340 | 340 |
| Incidental operations: | | | |
| Dormitories | 7 | 7 | 7 |
| Messhouses | 100 | 100 | 100 |
| Hotels | 32 | 36 | 36 |
| Cost of power and steam sold | 10 | 10 | 10 |
| Buildings rented | 22 | 25 | 25 |
| Accrued costs, employees' compensation | 30 | 42 | 52 |
| Reimbursable work performed for others | 140 | 150 | 150 |
| Costs of property sold | 69 | 33 | 30 |
| Bad debt losses | 7 | 7 | 8 |
| Other incidental expense | 28 | 35 | 27 |
| Total, incidental operations | 444 | 445 | 445 |
| General and administrative expense: | | | |
| Office of general manager | 86 | 86 | 86 |
| Office of comptroller | 63 | 63 | 63 |
| Accounting branch | 401 | 401 | 401 |
| Office services branch | 29 | 29 | 29 |
| Mail service | 6 | 6 | 6 |
| Internal duplicating service | 1 | 1 | 1 |
| Division of personnel | 89 | 89 | 89 |
| Real estate and contract agent | 65 | 65 | 65 |
| Seattle office | 33 | 33 | 33 |
| Washington office | 25 | 25 | 25 |
| Total, general and administrative | 797 | 797 | 797 |
| Total operating expenses, rail line operations | 14,452 | 14,540 | 14,540 |
| Other programs: | | | |
| Buildings | 53 | 54 | 54 |
| Riverboats and related facilities leased | 88 | 90 | 90 |
| Other nonoperating property | 15 | 16 | 16 |
| Total expenses, other programs | 157 | 160 | 160 |
| Total expenses | 14,608 | 14,700 | 14,700 |
| Net income | 285 | 300 | 300 |
| Total revenues | 14,894 | 15,000 | 15,000 |
| Total expenses | 14,608 | 14,700 | 14,700 |
| Less: | | | |
| Depreciation | 2,155 | 2,185 | 2,185 |
| Retirements of nondepreciable property | 85 | 80 | 80 |
| Improvements expense | 91 | 100 | 104 |
| Funded costs (program and financing) | 12,277 | 12,335 | 12,331 |
| Revenues over funded costs | 2,617 | 2,665 | 2,669 |

EXHIBIT B.—*Estimates for additions and betterments, and replacements*

[In thousands of dollars]

| | 1963 actual | 1964 estimate | 1965 estimate | |
|---|---|---|---|---|
| | | | Carryover authorizations | New authority requested |
| Land | 18 | | | |
| Buildings: | | | | |
| Office buildings | 5 | | | 2 |
| Housing | 3 | | | |
| Storage buildings | | 59 | | 2 |
| Service buildings | 6 | | | 2 |
| All other buildings | | 20 | | |
| Total buildings | 14 | 80 | | 6 |
| Other structures and facilities: | | | | |
| Electrical distribution systems | 1 | 2 | | |
| Heating systems | 4 | 20 | | |
| Harbor installations | 105 | 180 | | |
| Communications systems | 25 | 46 | | 34 |
| Storage (other than buildings) | | 1 | | |
| Roadbed and track | 672 | 654 | 60 | 681 |
| Tunnels | | | 20 | 20 |
| Bridges and culverts | 72 | 126 | 23 | 64 |
| Drainage ditches and retaining walls | 25 | 17 | | 24 |
| Signals and interlockers | 1 | 2 | | |
| Locomotive fuel, sand, and water stations | 1 | 15 | | |
| All other structures and facilities | 4 | 3 | | |
| Total other structures and facilities | 910 | 1,064 | 103 | 823 |
| Equipment: | | | | |
| Diesel locomotives | 233 | 225 | | 240 |
| Freight train cars | 38 | 148 | | 200 |
| Work train equipment | 32 | 48 | | 10 |
| Highway motor vehicles | 88 | 29 | | 97 |
| Automotive trailing equipment | 32 | 16 | | |
| Construction and material handling equipment | 530 | 270 | | 177 |
| Electrical generation equipment | 8 | 4 | | 8 |
| Repair shop equipment | 5 | 30 | | 13 |
| Utility equipment, stoves | 8 | 1 | | 7 |
| Refrigeration equipment | 1 | | | |
| Office equipment | 2 | 1 | | |
| Furniture and furnishings | | 1 | | |
| Technical equipment | 5 | 2 | | |
| Communications equipment | 9 | 6 | | 8 |
| Unit rail boxes | | 400 | | |
| URB refrigeration and heating units | 11 | 4 | | |
| Other equipment | 2 | 2 | | |
| Total equipment | 1,004 | 1,185 | | 761 |
| Nonoperating property: | | | | |
| Buildings | 2 | | | |
| Equipment | 1 | | | 150 |
| Total nonoperating property | 3 | | | 150 |
| Nonprogramed reserve | | 500 | | 500 |
| Total fiscal year | 1,950 | 2,829 | 103 | 2,240 |

EXHIBIT C—*Acquisitions by transfers without exchange of funds*

[In thousands of dollars]

| | 1963 actual | 1964 estimate | 1965 estimate |
|---|---|---|---|
| Equipment: | | | |
| Work train equipment | 2 | | |
| Highway motor vehicles | 7 | | |
| Construction and material handling equipment | 21 | | |
| Cleaning and polishing equipment | 1 | | |
| Office equipment | 5 | | |
| Furniture and furnishings | 1 | | |
| Total equipment | 37 | | |
| Nonoperating property: Buildings [1] | 10 | | |
| Total nonoperating property | 10 | | |
| Total fiscal year | 47 | | |

[1] Includes $7,000 appraised value of leasehold improvements acquired by abandonment.

OPERATION OF THE RAILROAD

Chairman HAYDEN. I will appreciate it if you will place your statement in the record and discuss the operation of the railroad in such a manner as you see fit.

Mr. FITCH. My name is Edwin M. Fitch. I am assistant to the General Manager of the Alaska Railroad, and I have been with the railroad about 16 years. I have a statement to the committee by John Manley, the General Manager and would appreciate it if you would incorporate it in the record.

Chairman HAYDEN. It will be printed in the record.

(The statement referred to follows:)

STATEMENT OF JOHN E. MANLEY, GENERAL MANAGER, THE ALASKA RAILROAD

Mr. Chairman and members of the committee, we are grateful for the privilege of presenting to this committee the capital improvements and replacement program of the Alaska Railroad for fiscal year 1965. We are happy to report again that the Alaska Railroad is not requesting an appropriation for this program. We are requesting the approval of this committee for this program of capital improvements and replacements to be financed from income.

The program of additions and betterments which we propose for the fiscal year ending June 30, 1965, will cost an estimated $2,239,900. Of this amount $2,135,650 is represented by capital items while the balance of $104,250 is to be charged to expense accounts. The total program for fiscal year 1965 may be classified into the following general categories: Buildings, $6,000; other structures and facilities, $823,000; equipment, $761,000; nonoperating property, $150,000; and nonprogramed reserve, $500,000.

The operations of the Alaska Railroad for the fiscal year ending June 30, 1963, showed an improvement over the previous fiscal year. Rising costs were offset largely by the increased use of mechanization in track maintenance and by improved cargo-handling procedures.

### Seatrain or Carfloat-Type Operations

Through the expanded use of the seatrain, or carfloat-type operations, we have been able to offer substantial economies to both the military and commercial shipper. At present, the Canadian National Railway car barges and Puget Sound-Alaska Van Lines car barges are operating between Prince Rupert and Whittier, and Seattle and Whittier, respectively. We have advice that the Alaska Steamship Co. will inaugurate seatrain service to Whittier by the end of April 1964. Such service has the inherent advantage of providing an avenue whereby a sealed carload of freight from the lower 48 States may move through to Alaska railbelt points with no intermediate handling or warehousing.

As the advantages and economies of this service become apparent to an increased number of shippers, the use of this service is increasing. In fiscal year 1962, when this service began, a mere 1,399 tons moved in this service. In fiscal year 1963, tonnage moving via this service increased to 11,500 tons. From July 1, 1963, to the end of January 1964, the tonnage using this service had increased to 21,000 tons, and will reach not less than 40,000 tons for fiscal year 1964. We expect this use to more than double again during the next fiscal year.

During fiscal year 1963, the Alaska Railroad moved 1,449,133 tons of freight a total of 202,159,000 ton-miles. During the same period the Railroad handled 63,682 passengers a total of 8,574,470 passenger miles. Total revenues of the Alaska Railroad for fiscal year 1963 were $14,893,839.09. Total expenses for the same period, including depreciation charges of $2,154,729.43, were $14,608,432.61. Net revenue for the year was $285,406.48.

Should there by further questions, I would appreciate the opportunity to furnish this information to the committee in order that the record may be complete and accurate.

To conclude my general statement, may I again thank you for the opportunity to present our proposed program for fiscal year 1965.

### Program of Improvements and Betterments

Mr. Fitch. As has been true for several years, we are asking for no appropriations from the Congress. We do have a program of improvements and betterments amounting to about $2.25 million, and we would appreciate your approval of that program of improvements and betterments.

During the fiscal year 1963 we had a gross income of about $15 million, and we had a net income of $285,000. The fiscal year 1964 is going well, and, barring catastrophes, we will do somewhat better in 1964 than we did in 1963.

### Rail-Barge Operations

The most interesting development of the year has been the rail-barge operations conducted from Prince Rupert to Whittier and from Seattle to Whittier. This enables a loaded freight car to be dispatched from Pittsburgh or Chicago or Los Angeles to Alaska under seal. It is not opened up until the car is spotted on consignee's track in Anchorage or Fairbanks.

I am ready to answer any questions you may have, but that is all of my statement.

Chairman Hayden. The Senator from Alaska, would you like to ask some questions?

Senator Bartlett. Not very many. Since the Alaska Railroad isn't requesting an appropriation, I don't think there will be a need for many questions, on my part, at least.

Mr. Fitch, the Alaska Railroad has not sought an operating appropriation from Congress for a good many years; has it?

Mr. Fitch. That is correct, sir.

INCREASED TONNAGE

Senator BARTLETT. How did your tonnage last year compare with the year before?

Mr. FITCH. It was slightly better, with the total for fiscal 1963 around a million and a half tons. Of course, a large proportion of that is domestically mined coal.

TONNAGE LOSS DUE TO ARMY PIPELINE

Senator BARTLETT. The Alaska Railroad was crippled in respect to its revenues some year ago, was it not, when the Army constructed a pipeline from Haines tidewater to Fairbanks?

Mr. FITCH. That is correct. We had to overcome a loss of gross revenues per year of nearly $3 million when that pipeline went through.

Senator BARTLETT. Does the Alaska Railroad lose revenue by reason of the fact that this rail-barge service is handling increased tonnage through Whittier rather than through the southern terminus of Seward?

Mr. FITCH. No. As a matter of fact, on the overall the Alaska Railroad gains revenue because of increased tonnage. The lower handling costs at Whittier are now reflected in our tariffs but the charge for the rail haul is the same.

Senator BARTLETT. The rate has been the same?

Mr. FITCH. The rate for the rail haul has been the same.

Senator BARTLETT. I have no more questions.

Chairman HAYDEN. Senator Bible.

Senator BIBLE. No questions, thank you, Mr. Chairman.

Chairman HAYDEN. Senator Young.

EXPENSES FOR IMPROVEMENTS AND BETTERMENTS

Senator YOUNG. Have you been spending as much money in recent years as you did, say, 10 years ago for improvement of the railroad?

Mr. FITCH. I was trying to think about that. We had a rehabilitation program that extended from about 1948 through about 1956 which required a considerable expenditure of money, and a large congressional appropriation. But since the time the rehabilitation program in the main was completed, we have tried to gage our improvements and betterments program by our depreciation for the previous year and our net revenue for the previous year. As of now our depreciation is about $2.25 million, and our net revenue is around $250,000 to $300,000. So that, on the average we attempt to keep our improvements and betterments program within that level, and we are doing it, and have done that for several years.

Senator YOUNG. If you don't make money you don't make any improvements?

Mr. FITCH. That is correct only in part. Remember that the depreciation charge, even if we lose money, constitutes a very large reserve which, if we earn, we can spend. Even in those years in which we have lost a little bit, we still have earned a very substantial depreciation charge. And that amount has been available for improvements and betterments.

Senator YOUNG. And do you have a reserve set aside for improvements and betterments?

REVOLVING FUND USED FOR EXPENSES

Mr. FITCH. It is not earmarked for that, but we have a revolving fund into which our depreciation charges and our retained earnings go. And that revolving fund in terms of retained earnings and depreciation charges is available for improvements and betterments. While we are quite radical when it comes to operations and new methods of doing business, we are quite conservative in terms of handing out money. We guard it quite jealously.

Senator YOUNG. Is the railroad in as good a repair now as it was 10 years ago?

Mr. FITCH. It is in better repair than it was 10 years ago. It is in the best state as regards both maintenance and new equipment that it has been in during my 16 years with the Alaska Railroad.

Senator YOUNG. Thank you, sir.

Senator HAYDEN. Thank you, sir.

## OFFICE OF OIL AND GAS

### STATEMENT OF JOHN RICCA, ACTING DIRECTOR, OFFICE OF OIL AND GAS, DEPARTMENT OF THE INTERIOR; J. CORDELL MOORE, ADMINISTRATOR, OIL IMPORT ADMINISTRATION; HENRY C. RUBIN, CHAIRMAN, OIL IMPORT APPEALS BOARD; AND RUSSELL W. SLIGHT, ADMINISTRATIVE OFFICER

1965 BUDGET REQUEST

Chairman HAYDEN. The Office of Oil and Gas.

There will be placed in the record the statements justifying the 1965 budget request of the Office of Oil and Gas in the amount of $660,000, an increase of $44,500 over fiscal year 1964.

(The material referred to follows:)

SUMMARY AND HIGHLIGHT STATEMENT

COORDINATION OF OIL AND GAS ACTIVITIES

*Program objectives*

The Office of Oil and Gas is a staff organization primarily responsible for the coordination of Federal oil and gas policies and activities.

*Program for past year*

Provided advice and assistance to Federal and State agencies, Members of Congress, congressional committees, industry, foreign governments and private citizens on oil and gas matters or activities.

Collaborated with the Office of Emergency Planning and the Departments of State and Defense on petroleum problems involved in potential and actual crises in the Far East, the Middle East, and Western Europe.

Participated in the development of petroleum policies and special papers to be used by U.S. delegations at meetings of the Petroleum Planning Committee of NATO and other international organizations.

Conducted regular and special petroleum supply-demand studies, both domestic and worldwide, including data for U.S. and free world economic development and military support programs.

Serves as the principal channel of communication between the Federal Government and the Interstate Oil Compact Commission, State oil and gas regulatory bodies, and the petroleum and gas industries.

*Program changes*

Any changes in the normal flow of petroleum and gas result in a shift of emphasis of the activities of the Office of Oil and Gas. This may result from specific situations such as those involved in Quemoy, Iraq, Jordan, Lebanon, or

Berlin; petroleum transportation system breakdowns, such as seizure of Suez, strikes or severe winter weather; breaks in pipelines whether due to natural causes or causes such as the destruction of pumping stations in Syria during the Suez crisis; and shortages or surpluses in supplies of petroleum and gas due to changes in economic conditions at home or abroad.

*Programs for budget year*

Most programs are expected to continue during the fiscal year 1965. The oil and gas activities must be flexible in order to meet specific situations at any given time. More emphasis is planned for the coordination of petroleum and gas matters concerning U.S. and free world economic development and military support programs.

ADMINISTRATION OF OIL IMPORT PROGRAM

*Program objectives*

The program is designed to insure a stable, healthy industry in the United States capable of exploring for and developing reserves to replace those being depleted. The basis of the program is the certified requirements of our national security which make it necessary that we preserve to the greatest extent possible a vigorous, healthy petroleum industry in the United States.

In addition to serving our own direct security interests, the program will also help prevent severe dislocations in our own country as well as in oil industries elsewhere in the free world which also have an important bearing on our own security. Petroleum, wherever it may be produced in the free world, is important to the security, not only of ourselves, but also of the free people of the world everywhere.

*Program for past year*

Analyzed applications from over 200 importers to determine eligibility for semiannual import allocations for crude oil, unfinished oils, and finished products.

Established semiannual allocations for imports of crude oil, unfinished oils, and finished products. Also established the amounts to be allotted to each eligible applicant by type of product.

Issued semiannual licenses to eligible importers authorizing the amounts of crude oil, unfinished oils, and finished products to be imported during each semiannual period and quarterly licenses for eligible importers of residual fuel oil. Furnished a copy of license to the appropriate collector of customs for their information and guidance.

Analyzed reports from each importer showing the amount of crude oil, unfinished oils, or finished products entering the United States under the license issued, the port of entry, and date of entry. Received and tabulated reports of exchanges of imported crude oil. Maintained and analyzed records of stock positions of residual fuel oil.

Maintained adequate records of imports for the preparation of regular and special reports to the Director, Office of Emergency Planning, the President, and the Congress.

*Program changes*

No significant change in the program is anticipated during the fiscal year 1965.

*Program for budget year*

The program is expected to continue at about the current level during the fiscal year 1965.

*Salaries and expenses*

| | |
|---|---|
| Appropriation, 1963 | $557,600 |
| Appropriation, 1964 | 615,500 |

SUMMARY OF INCREASES AND DECREASES

| | |
|---|---|
| 1. Coordination of oil and gas activities: | |
| To provide for increased pay costs for fiscal year 1964 positions | 14,000 |
| Filling of authorized positions | 26,500 |
| Subtotal | 40,500 |
| 2. Administration of oil import program: | |
| To provide for increased pay costs for fiscal year 1964 positions | 4,000 |
| Net increase, 1965 | 44,500 |
| Budget estimate, 1965 | 660,000 |

*Analysis by activities*

| Activity | Amount available, fiscal year 1963 | Amount available, fiscal year 1964 | Estimate, fiscal year 1965 | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. Coordination of oil and gas activities | $439,106 | $459,300 | $499,800 | $40,500 | $14,000 | $26,500 |
| 2. Administration of oil import program | 103,644 | 141,700 | 145,700 | 4,000 | 4,000 | |
| 3. Oil import appeals board | 11,389 | 14,500 | 14,500 | | | |
| Unobligated balance lapsing | 3,461 | | | | | |
| Total | 557,600 | 615,500 | 660,000 | 44,500 | 18,000 | 26,500 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

JUSTIFICATION

The estimate of $660,000 is an increase of $44,500 over the amount available for fiscal year 1964. The increase includes $18,000 for increased pay costs and $26,500 for full employment of previously authorized positions and a small increase for other expenses. The estimate is distributed as follows: Coordination of oil and gas activities, $499,800, administration of oil import program, $145,700, and administration of the Oil Import Appeals Board, $14,500.

COORDINATION OF OIL AND GAS ACTIVITIES

FUNCTIONS

The Office of Oil and Gas, under the supervision of the Assistant Secretary, Mineral Resources:

1. Provides staff advice and assistance to the Secretary of the Interior, the Assistant Secretary for Mineral Resources, and the secretariat in the development, coordination, and management of programs and functions relating to oil and gas which are assigned to the Department of the Interior by the President or the Congress.

2. Provides leadership in obtaining the coordination and unification of oil and gas policies and related administrative activities of Federal agencies and enlists their cooperation to assure adequate development, distribution, and utilization of petroleum and gas resources and facilities to meet civilian, industrial, and military requirements in time of peace or national emergency.

3. Serves as the principal channel of communication between the Federal Government and the Interstate Oil Compact Commission, State oil and gas regulatory bodies, and the petroleum and gas industries.

4. Provides advice and assistance to U.S. delegations to meetings of NATO's Petroleum Planning Committee and, on occasion, participates in planning activities of the working group thereof.

5. Provides advice and assistance to U.S. delegations to the Energy and Oil Committees of the Organization for Economic Cooperation and Development.

6. Provides advice and assistance on petroleum and gas matters and, when necessary, represents the United States at meetings of international and other organizations such as the Economic Commission for Latin America, Economic Commission for Asia and the Far East, Economic Commission for Europe, Economic and Social Commission of the United Nations, and the World Petroleum Congress.

EVALUATION AND FORECASTING

The Office of Oil and Gas is the only Federal Government office that consolidates military, industrial, and civilian petroleum requirements, correlates these requirements with probable availability of petroleum and gas, makes comprehensive petroleum and gas supply-demand surveys, and prepares forecasts of the probable availability of petroleum and gas to meet the peacetime requirements of the United States and the friendly foreign nations from all sources at home and abroad. In collaboration with the military and the Office of Emergency Planning conducts petroleum and gas supply-demand surveys to coordinate probable military demands with essential civilian and industrial requirements of the

United States and the friendly foreign nations to meet emergency or wartime requirements.

Data includes information on capacity and facilities to locate, produce, refine, store, and transport petroleum and gas in the free world under peacetime, emergency, or wartime conditions; also, supply-demand information for the free world under the same conditions.

Information on petroleum and gas supply and demand is available from many sources. Federal sources include the Geological Survey, the Bureau of Mines, the Department of Commerce, the Federal Power Commission, the Interstate Commerce Commission, or any agency developing, maintaining, and publishing data which has a bearing on petroleum and gas supply. State sources include the Interstate Oil Compact Commission, Texas Railroad Commission, and other State conservation agencies of oil-producing States. Industry sources include information regularly published by oil and gas trade associations and by direct contact with the executive and technical personnel in the oil and gas industry.

Additional information is obtained by utilizing the services of industry advisory councils, boards, and committees established by the Secretary of the Interior. These include the National Petroleum Council, which provides the services of the best-qualified men in the oil and gas industries on broad technical matters concerning petroleum and gas; the Foreign Petroleum Supply Committee which provides an advisory service pertaining to sources and methods for obtaining petroleum supply and demand information for all countries of the free world, and develops plans of action to prevent, eliminate, or alleviate shortages of petroleum supplies which threaten to affect adversely the security of the United States; the Petroleum Security Subcommittee of the Foreign Petroleum Supply Committee composed of special groups of technical advisers to the Department of the Interior, Department of Defense, and Office of Emergency Planning on highly confidential petroleum and gas questions involving national security and free world defense; and, the Emergency Advisory Committee for Natural Gas which provides an advisory service pertaining to plans of action to assure adequate supplies of natural gas under emergency or wartime conditions. These correlations of the probable petroleum and gas supplies available with probable peacetime, emergency, or wartime requirements disclose areas of potential deficiencies. The Office then devises ways to alleviate or prevent such deficiencies.

The foregoing information also provides a basis for special studies, reports and papers, pertaining to:

(1) Planning by the military and interested civilian agencies for threatened or actual crisis in situations such as Quemoy, Matsu, Lebanon, Jordan, Korea, Suez, and Berlin;

(2) Advice and assistance on a wide range of oil and gas matters to the Congress, its committees, the Departments of State, Commerce, and Defense, Office of Emergency Planning, and to other Federal agencies concerned with petroleum and gas or the supply therof;

(3) Cooperation between the Federal Government and the oil-producing States and the State conservation bodies thereof, and the Interstate Oil Compact Commission;

(4) Cooperation between the Federal Government and the petroleum and gas industries and industry councils, boards and committees;

(5) Activities of U.S. representatives at meetings of the Petroleum Planning Committee of NATO;

(6) Activities of the U.S. representatives at meetings of the Energy and Oil Committees of the Organization for Economic Cooperation and Development;

(7) Activities of the U.S. representatives at meetings of special petroleum industry advisory groups appointed by the Organization for Economic Cooperation and Development composed of the friendly European nations;

(8) Activities of the U.S. representatives at meetings of other international organizations dealing with the economic development of areas of the free world other than the NATO countries;

(9) Petroleum planning by the Department of State in connection with its programs with the NATO countries and the friendly foreign nations elsewhere in the free world.

COMMITTEE ACTIVITIES

The Office of Oil and Gas chairs or furnishes representatives to a variety of Federal, State and industrial committees interested in or affected by petroleum and gas operations or supplies. Some of these are:

(1) Cochairman of committees or subcommittees of the National Petroleum Council (industry);

(2) Cochairman and the Executive Secretary of the Emergency Advisory Committee for Natural Gas and its subcommittees;
(3) Chairman of the Foreign Petroleum Supply Committee (industry) and its subcommittees;
(4) Petroleum advisers to working groups of petroleum committees of international organizations;
(5) Department of the Interior alternate representative to the Interstate Oil Compact Commission (State government);
(6) Department of the Interior representative and alternate on the Petroleum Subcommittee of the Economic Intelligence Committee of Central Intelligence Agency (Federal Government);
(7) Department of the Interior alternate representative on the Operating Committee of the Advisory Committee on Export Policy of the Department of Commerce (Federal Government);
(8) Department of the Interior representative on the Interdepartmental Committee to Develop Programs to Retard Western Europe's Dependence on Middle East Oil;
(9) Department of the Interior representative on the Interdepartmental NATO Petroleum Backstopping Committee.

Requests for advice and assistance from Federal, State, local, industrial and international organizations continued at a high rate during the past fiscal year. This can be expected to continue so long as the economic development and military assistance programs continue. The number, type, and scope of world-wide petroleum supply-demand studies have been increased in order to handle properly these urgent requests for advice and assistance. The supply-demand data must be maintained on a current basis so as to forecast promptly petroleum requirements under peacetime, emergency, or wartime conditions. Also, military-type studies essential to military defense needs anywhere in the free world have been expanded significantly and must be revised promptly to meet actual or potential emergencies as the world situation changes.

In addition, the Office must furnish chairmen, cochairmen, and/or petroleum advisers to industry advisory committees at national and regional levels, full-time Government employees for staff assistance, stenographic reporting service for committee meetings, staff assistance for the preparation of reports, and the Executive Secretary for the Emergency Advisory Committee for Natural Gas.

Although no additional positions are involved, an increase in funds is necessary to provide full employment in previously authorized positions as well as a small increase for travel in connection with industry advisory committee meetings.

### Administration of Oil Import Program

#### AUTHORITY

Pursuant to section 2 of the act of July 1, 1954, as amended (72 Stat. 678, 19 U.S.C. 1352a) the Director, Office of Civil and Defense Mobilization, made an appropriate investigation and determined that crude oil and crude oil derivatives and products were being imported in such quantities and under such circumstances as to threaten to impair the national security.

The President concurred in the recommendation of the Director, Office of Civil and Defense Mobilization and issued Presidential Proclamation No. 3279, dated March 10, 1959, "Adjusting Imports of Petroleum and Petroleum Products Into the United States" (24 F.R. 1781) as amended by Proclamation 3290 (24 F.R. 3527); Proclamation 3328 (24 F.R. 10133); Proclamation 3386 (25 F.R. 13945); Proclamation 3389 (26 F.R. 507); Proclamation 3509 (27 F.R. 11985); Proclamation 3531 (28 F.R. 4077); and, Proclamation 3541 (28 F.R. 5931). The Presidential proclamation authorized the Secretary of the Interior to issue regulations for the purpose of implementing the provisions thereof.

The Secretary of the Interior, pursuant to the Presidential proclamation, established on March 13, 1959, an Oil Import Administration within the Department of the Interior, issued regulations for the operation of the oil import program, and delegated, except for appeals, the authority conferred upon him by the proclamation to the Administrator, Oil Import Administration (24 F.R. 1907; as amended) (25 F.R. 4957; 26 F.R. 2121; 27 F.R. 2603; 27 F.R. 5954; 27 F.R. 12442; 27 F.R. 12444; 28 F.R. 2677; 28 F.R. 2690; and, 28 F.R. 6363).

#### OBJECTIVES

The program is designed to insure a stable, healthy industry in the United States capable of exploring for and developing new hemisphere reserves to replace

those being depleted. The basis of the program is the certified requirements of our national security which make it necessary that we preserve to the greatest extent possible a vigorous, healthy petroleum industry in the United States.

PROGRAM

Prior to the beginning of each allocation period the Administrator shall determine in accordance with the limitations imposed by section 2 of Proclamation 3279, as amended, the quantities of imports of crude oil and unfinished oils which are available for allocation in districts I–IV and in district V, respectively, and the quantities of imports of residual fuel oil to be used as fuel and of imports of finished products other than residual fuel oil to be used as fuel which are available for allocation in such districts.

Pursuant to paragraph (d) of section 2 of Proclamation 3279, as amended, the Secretary will make a determination as to the level of imports into district I, districts II–IV, and district V, of residual fuel oil to be used as fuel in sufficient time to permit the making of allocations in advance of each allocation period.

Pursuant to section 2 of Proclamation 3279, as amended, it is determined (1) that the average barrels per day of imports of crude oil and unfinished oils into Puerto Rico during any particular allocation period shall not exceed the average barrels per day, as determined by the Administrator, during the month of July 1958 of imports of such commodities into Puerto Rico, (2) that the average barrels per day, as determined by the Administrator, of imports of residual fuel oil to be used as fuel and of imports of finished products other than residual fuel oil to be used as fuel into Puerto Rico during any particular allocation period shall not exceed the average barrels per day of imports of such products, respectively, into Puerto Rico during the last half of the calendar year 1958, and (3) such lower or higher levels as the Secretary may subsequently determine are required to meet increases or decreases in local demand in Puerto Rico or demand for export to foreign areas.

After each such determination, the Administrator shall as provided by these regulations make allocations and issue import licenses to eligible applicants for the appropriate allocation period.

ALLOCATION PERIODS

Allocations of imports of crude oil, unfinished oils, and finished products will be made for periods of 6 months—that is, July 1 through December 31; January 1 through June 30; except that allocations of imports into districts I–IV of residual fuel oil to be used as fuel will be made on an annual basis beginning April 1, 1961.

APPLICATIONS

An application for allocations of imports of crude oil, unfinished oils, or finished products and for a license or licenses, must be filed with the Administrator, in such form as he may prescribe, not later than 60 calendar days prior to the beginning of the allocation period for which the allocation is required. However, if the 60th day is a Saturday, Sunday or holiday, the application may be filed on the next succeeding business day. However, no application for an allocation of imports of finished products need be filed for the allocation period January 1, 1964, through June 30, 1964.

OPERATIONS

Involves (1) analysis of data published by the Bureau of Mines for crude oil, unfinished oils, and finished products by petroleum industry coordinating districts and Puerto Rico, and types of petroleum and petroleum products. Also, analyze data funished in reports by over 200 importers as well as past allowances for imports. Summarize data by districts and type of products and set overall amounts to be imported during each allocation period.

(2) Analyze applications from over 200 importers to determine eligibility for semiannual import allocations for crude oil, unfinished oils, and finished products.

(3) Establish semiannual allocations for imports of crude oil, unfinished oils, and finished products and yearly allocations for imports of residual fuel oil. Also establish the amounts to be allotted to each eligible applicant by types of products.

(4) Issue semiannual licenses to eligible importers authorizing the amounts of crude oil, unfinished oils, and finished products to be imported during each semiannual period, and quarterly licenses for eligible importers of residual fuel oil.

(5) Analyze reports from each importer showing the amount of crude oil, unfinished oils, or finished products entering the United States under the license issued, the port of entry, and date of entry. Each report must be filed with the Oil Import Administration within 15 days after the end of a particular month. Maintain adequate records of imports for the preparation of regular and special reports to the Director, Office of Emergency Planning, the President, and the Congress. Also, to answer telephone or written inquiries as well as inquiries by personal visits regarding the regulations, import allocations, or problems resulting therefrom or affected thereby from officials of interested importing companies, trade associations, and oil companies as well as State regulatory bodies, and the general public.

(6) Persons concealing material facts or making false statements in or in connection with any applications or reports filed, or in connection with any license presented to or statements made to a collector of customs, with respect to imports of crude oil, unfinished oils, or finished products, are guilty of a crime and upon conviction may be punished by fine or imprisonment or both. Analyze applications, licenses, and reports to prevent possible or actual violations of the oil import regulations. Initiate, when appropriate, action to start the necessary investigations to determine whether a crime has been committed. Initiate necessary reports to the Solicitor, Department of the Interior, for appropriate action.

(7) Analyze monthly reports of stocks of residual fuel oil on the east and gulf coast areas as a major factor in determining necessary adjustments to import levels for residual fuel oil.

(8) Analyze monthly reports furnished by collector of customs showing the amount of crude oil, unfinished oils, and finished products imported by overland transportation from the country in which produced and exempt from the overall import program to determine whether these imports tend to threaten the accomplishment of the purpose of Proclamation 3279, as amended.

(9) Review and take appropriate action upon exemption requests for the importation of small quantities of crude oil, unfinished oils, and finished products, including samples for testing or analysis, baggage entries, and informal entries.

(10) Prepare affidavits and furnish other technical exhibits, information, and advice to the Department of Justice in the continual attacks upon the program in suits brought in the Federal courts. Review all exchange agreements. Any exchange of foreign for domestic crude oil that is made on less than a barrel-for-barrel basis must have the prior approval of the Administrator.

(11) Analyze all petitions filed with the Oil Import Appeals Board and, in cases deemed necessary, prepare and file with the Board a formal statement setting forth the position of the Administration. Attend hearings before the Board and file posthearing statements commenting on testimony and evidence presented at the hearing.

(12) Make inspections of records and facilities of importers to verify their compliance with the program and the accuracy of materials submitted by them.

There have been 7 amendatory Presidential proclamations and 20 amendments to the original oil import regulations. Each of these changes has resulted in additional work and a small increase in staff was authorized in the past fiscal year. No significant changes in the program are anticipated during the budget year. The workload is expected to continue at present levels. No additional funds, except for pay act costs, are contained in the estimate for the Oil Import Administration.

The program for the Oil Import Administration is highly important, controversial, and vital to the development of mobilization programs of the United States and the nations of the free world. Import policies affect diplomatic relations with our friends in the free world, the economic development and defense mobilization programs for the North American Hemisphere, the operation and construction programs of the petroleum, gas, and allied industries, and the utilization of petroleum, gas, and petrochemicals by consumers. Not one phase of the oil-import program can be accomplished inadequately without the possibility of embarrassment.

### Oil Import Appeals

Mandatory restrictions on the importation of oil became effective March 11, 1959, and involve allocations and licenses for the importation of crude oils, unfinished oils, and finished products. The initial allocation period was March 11 through June 30, 1959. Allocations of crude oil and finished products other than residual fuel oil are now made and licensed on a 6-month basis. Effective April 1, 1961, residual fuel oil to be used as fuel is allocated on an annual basis and licensed on a quarterly basis.

Experience obtained since the inception of the program in March 1959, indicates that, if extensive revisions are not made in the oil import program or in the Board's authority, the administrative functions of the Board can continue to be met by the continued employment of one clerk-stenographer, paid from funds requested in this budget. In addition, the position of Chairman of the Board (formerly Counsel to the Board), a full-time position, continues to be paid from funds appropriated to the Office of the Solicitor.

In addition to the one salary, the major expenditure is for transcripts of Appeals Board hearings; however, it is not possible to determine an exact amount since the number of petitions to be received varies widely from one allocation period to another (because of program changes or changes in the Board's authority) as shown in the following table:

| Allocation period: | *Number of petitions* |
|---|---|
| March to June 1959 | 81 |
| July to December 1959 | 24 |
| January to June 1960 | 55 |
| July to December 1960 | 26 |
| January to June 1961 | 26 |
| July to December 1961 | 31 |
| January to June 1962 | 48 |
| July to December 1962 | 34 |
| January to June 1963 | 30 |
| July to December 1963 | 17 |
| Total | 372 |

Petitions under two separate allocation periods will be considered with the funds requested.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $554,139 | $711,500 | $860,000 | +$148,500 |
| Reimbursement for emergency preparedness functions | | −96,000 | −200,000 | −104,000 |
| Unobligated balance lapsing | 3,461 | | | |
| New obligational authority (appropriation) | 557,600 | 615,500 | 660,000 | +44,500 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 477,469 | 609,200 | 682,000 | +72,800 |
| 12 Personnel benefits | 34,717 | 44,900 | 47,000 | +2,100 |
| 21 Travel and transportation of persons | 7,190 | 16,000 | 60,000 | +44,000 |
| 22 Transportation of things | 587 | 2,000 | 2,000 | |
| 23 Rent, communications and utilities | 8,677 | 10,500 | 15,000 | +4,500 |
| 24 Printing and reproduction | 7,987 | 8,400 | 14,000 | +5,600 |
| 25 Other services | 3,445 | 3,500 | 6,000 | +2,500 |
| Services of other agencies | 9,736 | 11,500 | 20,000 | +8,500 |
| 26 Supplies and materials | 2,290 | 2,500 | 6,000 | +3,500 |
| 31 Equipment | 2,041 | 3,000 | 8,000 | +5,000 |
| Total obligations | 554,139 | 711,500 | 860,000 | +148,500 |

SUMMARY OF ACTIVITIES AND PROPOSED PROGRAM

Chairman HAYDEN. Mr. Ricca, we will be glad to hear from you. If you care to present a statement to the committee summarizing your activities in the past year and indicating your prospective program for the coming year, you may do that.

(The statement referred to follows:)

STATEMENT BY JOHN RICCA, ACTING DIRECTOR, OFFICE OF OIL AND GAS

The 1965 estimate of $660,000 for regular funds is an increase of $44,500 over the amount available for fiscal year 1964. The increase includes $18,000 for increased pay costs and $26,500 for full employment in previously authorized

positions as well as a very small increase for other expenses. The estimate is distributed as follows: Coordination of oil and gas activities, $499,800; administration of oil import program, $145,700; and administration of the Oil Import Appeals Board, $14,500.

The estimate of $499,800 for the Office of Oil and Gas is essential for the effective handling of regular oil and gas matters. Although there is a constant increase in workload, we expect to handle it without an increase in the number of positions. Full employment in previously authorized positions, however, will be necessary to accomplish the growing workload. Additional positions are not requested.

The Office develops, evaluates, and coordinates oil and gas information to provide sound bases for establishment and implementation of Government plans and programs for oil and gas; provides information and service to Government agencies with respect to strategic and economic factors affecting the petroleum and gas industries both in the United States and abroad; recommends programs and policies to improve the position and capabilities of these domestic industries; and, provides expert advice with respect to international oil and gas activities.

The Office prepares national emergency plans and develops preparedness programs to provide a state of readiness in petroleum and gas for all conditions of national emergency in collaboration with other Federal agencies, State, and local governments and industry; provides for a standby national Emergency Petroleum and Gas Administration; and selects and trains executive reservists to staff the EPGA. The Office of Oil and Gas would serve as the nucleus of EPGA in an emergency. The Office also participates with other Federal agencies in petroleum activities of international organizations and U.S. alliances in planning and testing programs designed to meet United States and allied emergency oil and gas requirements. Several members of the staff hold key emergency assignments in the EPGA.

The Office receives detailed factual studies and outstanding assistance from the petroleum and gas industries through industry advisory committees such as: The National Petroleum Council, Emergency Advisory Committee for Natural Gas, Foreign Petroleum Supply Committee, and Petroleum Security Subcommittee of the FPSC. The studies made by such groups contributed considerably toward keeping the Office small and effective. The Office participates in international committees, State organizations and interagency organizations concerned with petroleum and gas matters. These include the Petroleum Planning Committee of NATO, Special Committee for Oil of the OECD, Committee on Gas of the Economic Commission for Europe (United Nations), Interstate Oil Compact Commission, and numerous Federal interagency groups.

Favorable action is requested for a regular appropriation of $499,800.

### Appropriation Highlight

Mr. Ricca. Mr. Chairman, since you have made a part of the record the prepared statement, my brief discussion will highlight the appropriation.

Chairman Hayden. Very good.

Mr. Ricca. As you gentlemen are aware, this appropriation request for regular funds of $660,000 actually finances three separate small organizations. One of them is the Office of Oil and Gas, another is the Oil Import Administration, and a third one is the Oil Import Appeals Board. I will answer questions for the Office of Oil and Gas, and Mr. J. Cordell Moore, who is the Administrator of the Oil Import Administration, will answer questions for that section and Mr. Henry C. Rubin for the Oil Import Appeals Board.

### Purpose of Funds Requested

The regular funds that we are requesting for the Office of Oil and Gas actually total $499,800. This is an increase of $40,500 over the funds available during the fiscal year 1964; $14,000 of this increase is to cover increased pay costs for the last half of the fiscal

year. And the remaining increase of $26,500 is primarily for financing full-year employment of the 39 previously authorized positions.

We are not asking for any new positions at this time from these regular funds. Our workload is continuing to increase, but we feel that through internal adjustments, better supervision and increased productivity, we can handle this without asking for any additional people. We do feel, however, that we need to bring our present staff up to full strength in order to handle our workload.

The requested funds that are before you for the Office of Oil and Gas, we feel, are the minimum requirements, and we request your favorable action.

That completes the highlights, and I will answer any questions.

Chairman HAYDEN. Questions?

Senator BIBLE. I have none, Mr. Chairman.

Chairman HAYDEN. Senator Young.

Senator YOUNG. I have none.

Chairman HAYDEN. We thank you for your statement.

Now we will hear from Mr. Cordell Moore.

## OIL IMPORT ADMINISTRATION

Mr. MOORE. Mr. Chairman, I will file the formal statement, and I will, if I may, just highlight it.

(The statement referred to follows:)

STATEMENT BY J. CORDELL MOORE, ADMINISTRATOR, OIL IMPORT ADMINISTRATION

The 1965 estimate of $145,700 is an increase of $4,000 over the amount available for fiscal year 1964. The increase is for increased pay costs for previously authorized positions for the Oil Import Administration.

The Oil Import Administration was established by the Secretary of the Interior March 13, 1959 (24 F.R. 1907, as amended), pursuant to Presidential Proclamation No. 3279, dated March 10, 1959 (24 F.R. 1781, as amended). Substantial changes have been made in the program since it was inaugurated There have been 7 amendatory Presidential proclamations and 20 amendments to the original oil import regulations.

The program is designed to insure a stable healthy industry in the United States capable of exploring for and developing reserves to replace those being depleted. This program is vital to the defense mobilization activities of the United States and the nations of the free world. Oil import policies affect diplomatic relations with our friends in the free world, economic development and defense mobilization plans of the Western Hemisphere and other free world areas, and, last but not least, the petroleum, gas and allied industries, and the consumers of petroleum and gas.

The basis of the program is the certified requirements of our national security which make it necessary that we preserve to the greatest extent possible a vigorous and healthy petroleum industry in the United States. In serving our own direct security interests, the program will also help prevent severe dislocations in our own oil industry and in oil industries elsewhere which also have an important bearing on our own security.

The Administration establishes import quotas by petroleum districts and types of products; establishes semiannual allocations to individual importers for imports of crude oil, unfinished oils, and finished products and yearly allocations for imports of residual fuel oil; issues semiannual and quarterly licenses to eligible importers; analyzes monthly reports of imports and prepares consolidated regular and special reports by types of products and individual importers; analyzes applications, licenses and reports to prevent possible or actual violations of the oil import regulations and initiates necessary action incident thereto; evaluates monthly imports to determine whether these imports tend to threaten the accomplishment of the purposes of Proclamation 3279, as amended; analyzes and takes appropriate action upon exemption requests and exchange agreements; prepares affidavits and other technical exhibits required by the Department of Justice in

suits brought into Federal courts involving the program; prepares formal statements on petitions filed with the Oil Import Appeals Board setting forth and justifying the position of the Administration; makes inspections of records and facilities of importers to verify compliance to the program and the accuracy of the material submitted to the Administration, etc.

The workload will be heavy during the budget year. The presently authorized staff can handle this workload, but in order to do so all currently authorized positions must be filled. The funds requested will make it possible to fill all authorized positions and to meet the additional cost of the pay increase for a portion of the budget year.

Considerable travel will be necessary to handle import problems with groups of producers, refiners, importers, State regulatory bodies, and trade associations. Long-distance telephone calls and telegrams will be required to expedite and adjust oil import information urgently needed. Considerable funds will be needed for the reproduction of forms, regulations, press releases, and reports.

Favorable action on this request for an appropriation of $145,700 is respectfully requested.

THE 1965 BUDGET REQUEST

Mr. MOORE. The funds requested for the Oil Import Administration total $145,700. The increase of $4,000 over the amount available for the fiscal year 1964 is for increased pay costs for fiscal year 1964 positions. No new positions are involved in the estimates.

The workload for the year will be heavy, but we think we can handle it with the staff that we currently have on hand with no necessity for an increase in the number of positions. It will, however, be necessary for present personnel to perform some travel to handle the important problems with groups of producers, refiners, importers, State regulatory bodies and trade associations.

Long-distance telephone calls and telegrams will be required to expedite and adjust oil import information urgently needed. Considerable funds will be needed for the reproduction of forms, regulations, press releases, and reports.

Favorable action on this request for the appropriation of $145,700 is respectfully requested.

I will be pleased to answer any questions you may have.

Senator YOUNG. Would you give more detailed information as to what you will use this $145,700 for?

Mr. MOORE. $112,000 is for salaries of personnel; personnel benefits, $8,000; travel expenses, $5,000; transportation of things, $500; $5,000 for communications; $5,000 for printing and reproduction; $8,000 for other services; supplies and materials, $1,800; equipment, $400.

Senator YOUNG. Do you have this additional money?

Mr. MOORE. Additional money? There is only $4,000. That is merely to take care of increased pay costs.

IMPORTATION OF OIL

Senator YOUNG. Are you importing more oil or less?

Mr. MOORE. Well, it remained fairly constant with the exception of residual fuel oil. Importation of residual fuel oil, in the past year, increased by about 25,000 barrels per day. For the first half of this year the increase in crude oil and unfinished oil is about 10,000 barrels per day.

Senator YOUNG. I am trying to figure out, did you get more money to import more or less?

Mr. MOORE. Well, I think——

Senator YOUNG. You don't need to answer. That is all.
Chairman HAYDEN. Any further questions?
(No response.)
Chairman HAYDEN. Thank you for your appearance.
We will now hear from the Geological Survey.

## GEOLOGICAL SURVEY

**STATEMENT OF THOMAS B. NOLAN, DIRECTOR, GEOLOGICAL SURVEY, DEPARTMENT OF THE INTERIOR, ACCOMPANIED BY ARTHUR A. BAKER, ASSOCIATE DIRECTOR; ROBERT H. LYDDAN, ASSISTANT DIRECTOR; GEORGE D. WHITMORE, CHIEF TOPOGRAPHIC ENGINEER; CHARLES A. ANDERSON, CHIEF GEOLOGIST; ERNEST L. HENDRICKS, ASSOCIATE CHIEF HYDROLOGIST; HAROLD J. DUNCAN, CHIEF, CONSERVATION DIVISION; ROBERT L. MORAVETZ, CHIEF, PUBLICATIONS DIVISION; PERRY B. SIMMS, ASSISTANT EXECUTIVE OFFICER; AND FRED E. STEARNS, BUDGET OFFICER.**

### 1965 BUDGET REQUEST

Chairman HAYDEN. For fiscal year 1965 the Geological Survey proposes a budget of $69,223,000, an amount $5,523,000 in excess of the amount appropriated in fiscal year 1964. The justifications for this estimate will be included in the record.
(The statement referred to follows:)

### SURVEYS, INVESTIGATIONS, AND RESEARCH

#### HIGHLIGHT STATEMENT

Economists have recently estimated that the value of the gross national product will increase $30 billion in 1964, over 1963, and forecast sustained growth in 1965. Predictions of continued prosperity of such magnitude in a resource-based economy necessarily depend heavily on up-to-date, accurate and continuous inventories of water and mineral resources.

It is the responsibility of the Geological Survey to provide certain information which plays a key roll in the wise development of natural resources. This includes studies of minerals and mineral fuels, the general geology of the Nation and detailed geology of specific areas, the quantity and quality of water resources and the preparation of accurate maps at scales suitable for planning the development of these resources and for many other planning purposes.

There is frequent reference in the body of this budget proposal to long-range planning and of the 1965 proposals in relation to a 10-year set of goals. These plans were set forth in a booklet which has been reviewed by representatives of industry, agencies at various levels of government and university departments. Long-range programs of the Geological Survey are planned to hold its expenditures to the minimum consistent with its responsibilities.

We feel that this type of review has established a solid planning reference for the Survey's programs by gaging the needs of industry, State and Federal agencies and others who are engaged in resource appraisal, planning, or development. We feel, also, that offering others an opportunity to review our plans and goals has considerably lessened the likelihood of unwitting duplication. There is evidence that those who reviewed the Survey's long-range plan believed it would assist them in planning their work. Surely, in some cases, it will provide a basis for better coordination between the programs of the Survey and those of other agencies, both Federal and State.

The urgency of the need for basic information for planning and developing was consistently emphasized in the comments received on the Surevy's long-range plan. Public and private development programs covering highways, industries, and communities rely heavily on good topographic map coverage. Similarly, modern planners require more exact information on surface and ground-water supplies as industrial, domestic, and agricultural requirements continue to rise and the remaining supplies diminish. Clearly, these needs call for surveys in many areas where none have been made and new surveys where modern needs or the changes wrought by devlopment render the old surveys obsolete.

The long-range plan for the Geological Survey outlines the growth that will be required for this bureau to keep pace with the demands placed on it by the growth of our Nation. The fiscal year 1965 program proposed here is the first step in the orderly development of this plan, and is designed with both immediate needs and future demands of the growing Nation in mind.

### FINANCING OF GEOLOGICAL SURVEY PROGRAMS

An appropriation of $69,223,000 is requested for fiscal year 1965, an increase of $5,523,000 over the current year. The total program of the Geological Survey, estimated at $101,311,000 in 1965, is financed approximately 68 percent by direct appropriation, 15 percent by contributions from State and municipal agencies, and 17 percent by reimbursement from Federal agencies and sundry non-Federal entities. The sources of funds for each activity for 1963, 1964, and 1965 are shown below.

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 |
|---|---|---|---|
| Topographic surveys and mapping: | | | |
| Direct appropriation | $19,869,216 | $21,640,000 | $22,301,000 |
| States, counties, and municipalities | 2,449,535 | 2,756,000 | 2,750,000 |
| Miscellaneous non-Federal sources | 224,934 | 235,000 | 235,000 |
| Bureau of Reclamation | 959,914 | 1,017,000 | 1,011,000 |
| National Science Foundation | 330,482 | 363,000 | 385,000 |
| Miscellaneous Federal agencies | 475,632 | 468,000 | 414,000 |
| Total | 24,309,713 | 26,479,000 | 27,096,000 |
| Geologic and mineral resource surveys and mapping: | | | |
| Direct appropriation | 15,367,701 | 16,260,000 | 17,510,000 |
| States, counties, and municipalities | 1,076,921 | 1,070,000 | 1,085,000 |
| Kingdom of Saudi Arabia | | 503,000 | 459,000 |
| Miscellaneous non-Federal sources | 113,104 | 70,000 | 60,000 |
| Department of Defense | 1,312,075 | 1,549,000 | 818,000 |
| Air Force | 205,347 | 186,000 | 53,000 |
| Army | 1,445,035 | 1,360,000 | 1,486,000 |
| Department of State | 775 | 132,000 | |
| Agency for International Development | 1,368,129 | 1,337,000 | 1,443,000 |
| Atomic Energy Commission | 1,480,674 | 1,030,000 | 1,004,000 |
| Government Printing Office | 123,883 | 160,000 | 160,000 |
| National Aeronautics and Space Administration | 631,843 | 1,323,000 | 1,322,000 |
| National Science Foundation | 81,339 | 282,000 | 166,000 |
| Miscellaneous Federal agencies | 219,483 | 119,000 | 94,000 |
| Total | 23,426,309 | 25,381,000 | 25,660,000 |
| Marine geology and hydrology: Direct appropriation | 494,386 | 498,000 | 998,000 |
| Water resources investigations: | | | |
| Direct appropriation | 15,900,884 | 18,707,000 | 20,797,000 |
| States, counties, and municipalities: | | | |
| Matched by Federal funds | 8,373,669 | 10,150,000 | 10,800,000 |
| Unmatched | 446,821 | 400,000 | 408,000 |
| Permittees and licensees of the Federal Power Commission | 341,572 | 361,000 | 385,000 |
| Miscellaneous non-Federal sources | 56,345 | 65,000 | 70,000 |
| Bureau of Reclamation | 1,084,884 | 1,173,000 | 1,160,000 |
| National Park Service | 152,037 | 161,000 | 159,000 |
| Agriculture | 254,073 | 215,000 | 217,000 |
| Air Force | 161,012 | 152,000 | 154,000 |
| Army | 2,067,357 | 2,526,000 | 2,551,000 |
| Department of State | 130,507 | 143,000 | 156,000 |
| Agency for International Development | 788,596 | 803,000 | 818,000 |
| Atomic Energy Commission | 1,218,153 | 945,000 | 963,000 |
| Tennessee Valley Authority | 113,843 | 127,000 | 130,000 |
| Miscellaneous Federal agencies | 455,586 | 347,000 | 352,000 |
| Total | 31,545,339 | 36,275,000 | 39,120,000 |

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 |
|---|---|---|---|
| Soil and moisture conservation: | | | |
| Direct appropriation | $189,000 | $193,000 | $195,000 |
| Bureau of Land Management | | 34,000 | 77,000 |
| Total | 189,000 | 227,000 | 272,000 |
| Conservation of lands and minerals: | | | |
| Direct appropriation | 4,189,055 | 4,401,000 | 4,591,000 |
| Miscellaneous non-Federal sources | 6,875 | 3,000 | 5,000 |
| Miscellaneous Federal agencies | 46,176 | 70,000 | 58,000 |
| Total | 4,242,106 | 4,474,000 | 4,654,000 |
| General administration: | | | |
| Direct appropriation | 1,743,975 | 1,801,000 | 1,831,000 |
| Miscellaneous non-Federal sources | 21,800 | 42,000 | 42,000 |
| Miscellaneous Federal agencies | 581,136 | 641,000 | 638,000 |
| Total | 2,346,911 | 2,484,000 | 2,511,000 |
| Special-purpose buildings: Direct appropriation | 51,939 | 200,000 | 1,000,000 |
| Summary: | | | |
| Direct appropriation | 57,806,156 | 63,700,000 | 69,223,000 |
| States, counties, and municipalities | 12,346,946 | 14,376,000 | 15,043,000 |
| Miscellaneous non-Federal sources | 764,630 | 1,279,000 | 1,256,000 |
| Other Federal agencies | 15,687,971 | 16,663,000 | 15,789,000 |
| Total | 86,605,703 | 96,018,000 | 101,311,000 |

AUTHORIZATION FOR THE PURCHASE OF 50 PASSENGER MOTOR VEHICLES FOR REPLACEMENT ONLY

The vehicles requested are used to transport men and equipment over all kinds of roads and terrain and in all kinds of weather, in the conduct of the field work of the Geological Survey. These cars must give dependable service at all times, since a great deal of the transportation required is in areas where repair services are not available. Field use tends to shorten the efficient life of a vehicle.

The 50 vehicles to be replaced meet or exceed the age or mileage replacement standards prescribed by General Services Administration, and can no longer give dependable and economical service. The vehicles will be used in areas not serviced by vehicle pools maintained by the General Services Administration.

| | |
|---|---|
| Gross cost of vehicles to be purchased | $81,200 |
| Allowance on old vehicles to be exchanged | 20,200 |
| Net cost | 61,000 |
| Number of old passenger vehicles still to be used | 191 |

*Surveys, investigations, and research*

| | |
|---|---|
| Appropriation, 1963 (total available) | $57,943,000 |
| Appropriation, 1964 | 63,700,000 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | | |
|---|---|---|
| Topographic surveys and mapping: | | |
| To provide for increased pay costs for fiscal year 1964 positions | +$315,000 | |
| For purchase of stereocompilation instruments to reduce extent of second-shift operations in Denver | −300,000 | |
| To accelerate production of standard quadrangle mapping | +300,000 | |
| For resumption of work on the National Atlas | +346,000 | |
| | | +661,000 |
| Geologic and mineral resource surveys and mapping: | | |
| To provide for increased pay costs for fiscal year 1964 positions | +265,000 | |
| For space renovation at Denver Federal Center to provide laboratory facilities for research in isotope geology | −250,000 | |

*Surveys, investigations, and research*—Continued

SUMMARY OF INCREASES AND DECREASES, 1965—continued

| | | |
|---|---|---|
| Geologic and mineral resource surveys, etc.—Con. | | |
| For accelerated program in economic and engineering geology | +$250,000 | |
| For accelerated studies of the earth's crust and upper mantle | +985,000 | |
| | | +$1,250,000 |
| Marine geology and hydrology: For extension of marine geologic and hydrologic studies | | +500,000 |
| Water resources investigations: | | |
| To provide for increased pay costs for fiscal year 1964 positions | +$288,000 | |
| Payment to employee compensation fund (Public Law 86–767, sec. 209) | +34,964 | |
| Expansion of primary networks for studies of the surface and ground water resources of the Nation | +1,265,036 | |
| To match anticipated increase in State offerings for cooperative investigations of surface and ground waters | +502,000 | |
| | | +2,090,000 |
| Soil and moisture conservation: To provide for increased pay costs for fiscal year 1964 positions | | +2,000 |
| Conservation of lands and minerals: | | |
| To provide for increased pay costs for fiscal year 1964 positions | +$90,000 | |
| Increased workload in lease supervision and land classification activities | +100,000 | |
| | | +190,000 |
| General administration: To provide for increased pay costs for fiscal year 1964 positions | | +30,000 |
| Special-purpose buildings: | | |
| Preliminary design of Geological Survey building at Washington, D.C. | −$100,000 | |
| Design of nuclear research laboratory at Denver, Colo | −100,000 | |
| Construction of nuclear research laboratory at Denver, Colo | +1,000,000 | |
| | | +800,000 |
| Net increase, 1965 | | +5,523,000 |
| Budget estimate, 1965 | | 69,223,000 |

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. Topographic surveys and mapping | $19,869,216 | $21,640,000 | $22,301,000 | +$661,000 | +$315,000 | +$346,000 |
| 2. Geologic and mineral resource surveys and mapping | 15,367,701 | 16,260,000 | 17,510,000 | +1,250,000 | +265,000 | +985,000 |
| 3. Marine geology and hydrology | 494,386 | 498,000 | 998,000 | +500,000 | ---------- | +500,000 |
| 4. Water resources investigations | 15,900,884 | 18,707,000 | 20,797,000 | +2,090,000 | +288,000 | +1,802,000 |
| 5. Soil and moisture conservation | 189,000 | 193,000 | 195,000 | +2,000 | +2,000 | ---------- |
| 6. Conservation of lands and minerals | 4,189,055 | 4,401,000 | 4,591,000 | +190,000 | +90,000 | +100,000 |
| 7. General administration | 1,743,975 | 1,801,000 | 1,831,000 | +30,000 | +30,000 | ---------- |
| 8. Special-purpose buildings | 51,939 | 200,000 | 1,000,000 | +800,000 | ---------- | +800,000 |
| Unobligated balance lapsing | 136,844 | ---------- | ---------- | ---------- | ---------- | ---------- |
| Total | 57,943,000 | 63,700,000 | 69,223,000 | +5,523,000 | +990,000 | +4,533,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $86,605,703 | $96,018,000 | $101,311,000 | +$5,293,000 |
| Unobligated balance brought forward | −400,000 | −400,000 | −400,000 | |
| Advances and reimbursements from: | | | | |
| Other accounts | −15,687,972 | −16,663,000 | −15,789,000 | +874,000 |
| Non-Federal sources | −13,111,575 | −15,655,000 | −16,299,000 | −644,000 |
| Unobligated balance carried forward | 400,000 | 400,000 | 400,000 | |
| Unobligated balance lapsing | 136,844 | | | |
| Appropriation | 57,943,000 | 63,700,000 | 69,223,000 | +5,523,000 |
| Obligations by objects: | | | | |
| Direct obligations: | | | | |
| 11 Personnel compensation | 40,055,960 | 44,030,000 | 46,970,000 | +2,940,000 |
| 12 Personnel benefits | 2,953,737 | 3,280,000 | 3,555,000 | +275,000 |
| 21 Travel and transportation of persons | 2,811,388 | 2,949,000 | 3,246,000 | +297,000 |
| 22 Transportation of things | 735,680 | 870,000 | 975,000 | +105,000 |
| 23 Rent, communications, and utilities | 1,590,965 | 1,915,000 | 2,070,000 | +155,000 |
| 24 Printing and reproduction | 1,202,176 | 1,210,000 | 1,320,000 | +110,000 |
| 25 Other services | 2,213,246 | 2,388,000 | 2,796,000 | +408,000 |
| Services of other agencies | 431,563 | 971,000 | 742,000 | −229,000 |
| 26 Supplies and materials | 2,577,298 | 3,020,000 | 3,268,000 | +248,000 |
| 31 Equipment | 3,142,959 | 3,055,000 | 3,290,000 | +235,000 |
| 42 Insurance claims and indemnities | 25,424 | 5,000 | | −5,000 |
| Subtotal | 57,740,396 | 63,693,000 | 68,232,000 | +4,539,000 |
| Deduct quarters and subsistence charges | 7,726 | 8,000 | 9,000 | +1,000 |
| Total direct obligations | 57,732,670 | 63,685,000 | 68,223,000 | +4,538,000 |
| Reimbursable obligations: | | | | |
| 11 Personnel compensation | 19,064,561 | 20,800,000 | 21,220,000 | +420,000 |
| 12 Personnel benefits | 1,412,624 | 1,520,000 | 1,550,000 | +30,000 |
| 21 Travel and transportation of persons | 1,871,368 | 1,995,000 | 1,944,000 | −51,000 |
| 22 Transportation of things | 579,170 | 710,000 | 685,000 | −25,000 |
| 23 Rent, communications, and utilities | 706,464 | 770,000 | 770,000 | |
| 24 Printing and reproduction | 157,041 | 195,000 | 170,000 | −25,000 |
| 25 Other services | 2,206,722 | 2,568,000 | 2,505,000 | −63,000 |
| Services of other agencies | 301,322 | 570,000 | 440,000 | −130,000 |
| 26 Supplies and materials | 1,062,404 | 1,305,000 | 1,288,000 | −17,000 |
| 31 Equipment | 1,434,693 | 1,885,000 | 1,516,000 | −369,000 |
| 42 Insurance claims and indemnities | 3,713 | | | |
| Subtotal | 28,800,082 | 32,318,000 | 32,088,000 | −230,000 |
| Deduct quarters and subsistence charges | 535 | | | |
| Total reimbursable obligations | 28,799,547 | 32,318,000 | 32,088,000 | −230,000 |
| Allocation accounts: | | | | |
| 21 Travel and transportation of persons | | | 1,000 | +1,000 |
| 24 Printing and reproduction | | | 12,000 | +12,000 |
| 25 Other services | 38,356 | 15,000 | 32,000 | +17,000 |
| 32 Lands and structures | 35,130 | | 955,000 | +955,000 |
| Total allocations | 73,486 | 15,000 | 1,000,000 | +985,000 |
| Total obligations | 86,605,703 | 96,018,000 | 101,311,000 | +5,293,000 |

*Consolidated accounts and central services financed by benefiting activities*

Services, supplies, or equipment which are in common need by two or more divisions are, for efficiency and economy, reported in consolidated accounts. Charges are initially made to these accounts, are ultimately charged to the activity benefited, and are justified in the budget document for those activities. The

actual costs of these accounts for 1963 and the estimates for 1964 and 1965 are summarized below:

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 |
|---|---|---|---|
| Consolidated accounts: | | | |
| Motor vehicle fleet operation | $1,407,983 | $1,523,000 | $1,514,000 |
| Rental and maintenance of certain facilities at headquarters and field centers | 511,358 | 674,000 | 701,000 |
| Warehouse stock of common-use supplies and materials | 632,405 | 664,000 | 649,000 |
| Survey's proportionate share of departmental charges, safety committee, professional staffing committee, and contingencies arising from operation of field centers | 94,419 | 139,000 | 120,000 |
| Total consolidated accounts | 2,646,165 | 3,000,000 | 2,984,000 |
| Central services: | | | |
| Map reproduction | 2,080,522 | 2,360,000 | 2,600,000 |
| Editing and illustration of publications | 1,953,870 | 2,589,000 | 2,802,000 |
| Distribution of maps and reports, response to public inquiries and related functions | 1,027,809 | 1,496,000 | 1,654,000 |
| Property maintenance and instrument development | 546,193 | 574,000 | 596,000 |
| Computing and tabulating services | 605,924 | 659,000 | 680,000 |
| Total central services | 6,214,318 | 7,678,000 | 8,332,000 |
| Grand total | 8,860,483 | 10,678,000 | 11,316,000 |
| Less interoffice billings | 360,154 | 902,000 | 1,024,000 |
| Net cost | 8,500,329 | 9,776,000 | 10,292,000 |

Financial support for these accounts and services is summarized as follows:

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 |
|---|---|---|---|
| Topographic surveys and mapping | $3,251,758 | $3,779,000 | $3,990,000 |
| Geologic and mineral resource surveys and mapping | 2,871,796 | 3,235,000 | 3,317,000 |
| Marine geology and hydrology | 9,450 | | |
| Water resources investigations | 2,080,911 | 2,417,000 | 2,606,000 |
| Soil and moisture conservation | 5,319 | 6,000 | 6,000 |
| Conservation of lands and minerals | 147,214 | 164,000 | 192,000 |
| General administration | 133,881 | 175,000 | 181,000 |
| Net cost [1] | 8,500,329 | 9,776,000 | 10,292,000 |

[1] Includes charges to direct appropriation and reimbursements.

## Topographic Surveys and Mapping

The estimate of $22,301,000 is an increase of $661,000 over 1964. The increase includes $315,000 for increased pay costs.

### IMPORTANCE OF THE PROGRAM

The national topographic map series is a source of valuable data for the investigation, development, and management of the country's natural resources, for military and civil defense, and for other matters.

Topographic maps are important in (1) geologic studies and minerals exploration, (2) appraising the feasibility of water resource projects, (3) designing and constructing transportation systems, (4) developing comprehensive river basin plans, (5) locating and preserving future reservoir sites, (6) zoning of flood plains, (7) planning development of forests including necessary access roads, (8) improved resource management of public lands, (9) the preservation of wilderness areas, (10) planning for recreational facilities in parks, forests, seashores, and urban localities, and (11) other related matters. Topographic surveys should be completed in advance of resources investigations and development to take full advantage of the detailed terrain information provided.

*Analysis by subactivities*

| Subactivity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (*a*) Standard quadrangle mapping | $16,133,499 | $18,420,000 | $18,690,000 | +$270,000 | +$270,000 | |
| (*b*) Map revision and maintenance | 2,443,059 | 2,270,000 | 2,300,000 | +30,000 | +30,000 | |
| (*c*) Small-scale and special mapping | 1,292,658 | 950,000 | 1,311,000 | +361,000 | +15,000 | +$346,000 |
| Total | 19,869,216 | 21,640,000 | 22,301,000 | +661,000 | +315,000 | +346,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

(*a*) *Standard quadrangle mapping.*—The estimate of $18,690,000 includes $270,000 over 1964 for increased pay costs.

This subactivity covers field and photogrammetric surveys, cartographic processing, printing and distribution operations required for 7½- and 15-minute mapping published in the national topographic map series. For all States except Alaska, original mapping will be at 1-to-24,000 scale, but first publication will either be 7½-minute series (1-to-24,000 scale) or 15-minute series (1-to-62,500 scale) depending on urgency of immediate need for the 1-to-24,000 publication. In case first publication is in the 15-minute series, photocopies of the original map drawings at 1 to 24,000 will always be available on open file. These maps would ultimately be published in colors in the 7½-minute quadrangle series.

The program under this subactivity is directed from a headquarters office in Washington, D.C. Mapping operations are carried out by four area offices located in Arlington, Va.; Rolla, Mo.; Denver, Colo.; and Menlo Park, Calif. Each area office maintains personnel and equipment sufficient to accomplish the field and photogrammetric surveys and cartographic processing needed for its part of the total program. The field surveys are done from temporary duty stations within the areas to be mapped.

NEED FOR FUNDS

Requests by Federal, State, and local agencies for topographic maps have been greatly in excess of mapping capacity for several years. Both private and governmental committees and agencies reporting and preparing studies on the development of the Nation's natural resources have agreed that accurate, up-to-date topographic maps are a basic need and should be provided as soon as possible. In the long-range water resource development program, major emphasis is being given to coordinated planning of river basin development and research on water resources. The information on the physical environment provided by topographic quadrangle maps will be valuable supporting data for comprehensive river basin plans developed by the Departments of Agriculture; Defense; Health, Education, and Welfare; and Interior, and outlined in Senate Document No. 97, 87th Congress. Requirements for topographic maps will be further emphasized as the demand on the Nation's natural resources increases over the next few decades to meet the needs of the expanding population.

PLAN OF WORK

Each year, priority requests for topographic mapping are submitted by Federal map-using agencies under procedures established by the Bureau of the Budget, and by State sources including officially established State mapping advisory committees. Areas to be included in the topographic mapping program are selected after these requests have been evaluated.

Under the requested funds it is proposed to start about 85,000 square miles of mapping in fiscal year 1965, of which about 23,000 square miles will be resurveys at 1-to-24,000 scale of areas covered by older, inadequate 15-minute maps.

Topographic quadrangle maps are important to military as well as civil map users. Mapping projects of particular interest to the Army are under way in

several areas such as southern Arizona (the electronic environmental test area) and the vicinity of Fort Bragg. Under an agreement with the Army Map Service, the Geological Survey is modifying the format of the topographic maps it publishes to provide for certain military needs, thereby reducing the requirements for separate military editions and resulting in considerable savings to the Government.

Through current cooperative agreements, 32 States and Puerto Rico are contributing a total of over $2 million to the national topographic mapping program. These contributions range from a few thousand dollars a year to over a half million dollars a year. Cooperative programs in New York and Pennsylvania were increased during fiscal year 1963 and are continuing at the increased rate in 1964. Fiscal year 1965 will be the third year of a 6-year cooperative program to complete the mapping of Virginia. Minnesota increased its cooperative offering in fiscal year 1964, and Vermont renewed its offering after an interval of 4 years.

SOURCE OF FUNDS

The total program for standard quadrangle mapping is financed from several sources as listed below:

| | Amount available, 1963 | Estimate, 1964 | Estimate, 1965 |
|---|---|---|---|
| Source: | | | |
| Direct appropriation | $16,133,499 | $18,420,000 | $18,690,000 |
| States and municipalities | 1,938,528 | 2,201,000 | 2,190,000 |
| Bureau of Reclamation | 959,914 | 1,017,000 | 1,011,000 |
| Other Federal agencies | 150,506 | 117,000 | |
| Total | 19,182,447 | 21,755,000 | 21,891,000 |

(*b*) *Map revision and maintenance.*—The estimate of $2,300,000 includes $30,000 over 1964 for increased pay costs.

This subactivity includes (1) of all mapping operations necessary to revise or improve existing 7½- or 15-minute quadrangle maps; and (2) reprinting such maps as required to maintain stocks.

Population increases and the attendant problems of expanding water and power facilities, sanitation systems, transportation routes, and industrial development for urban growth, accent the need for up-to-date topographic maps. Revision efforts are being directed toward these critical areas.

The corridors of development that will result along the expanding Interstate Highway System are expected to bring about a heavy demand for updating of maps, particularly for industrial plant location. Prudent management of the investment required to produce topographic maps requires that they be maintained in the most up-to-date condition.

The Census Bureau states that reasonably current maps of the urbanized 3 percent of the land area of the United States would vastly reduce the mapping difficulties associated with more than 50 percent of the efforts of their field staff. Topographic quadrangle maps of many of the largest cities have been completed, but a large proportion of these maps are out of date. These are also the areas where the most changes have taken place. Accordingly, much of the proposed revision program in 1965 would be devoted to urban and suburban areas.

NEED FOR FUNDS

The estimate for 1965 of $2,300,000 is needed to keep the number of maps revised in 1965 up to the current level and to replenish map stocks depleted by increased sale of maps to the public.

About 5,700 7½-minute maps are now in need of revision. As more maps are made, expenditures increase for reprinting and distributing stocks. About 1,700 maps will be reprinted in fiscal year 1964 which is 800 more than was estimated only a year ago. This explains the increased expenditure in this subactivity over what was planned in the 1964 budget. Receipts from the sale of maps, which revert to the U.S. Treasury, amounted to $739,966 in fiscal year 1963.

In fiscal year 1963, 214 maps were revised. In fiscal year 1964, it is estimated that revision production will be about the same as fiscal year 1963.

PLAN OF WORK

The length of time between revision surveys depends on the changes within the area covered by each quadrangle map. In suburban areas changes occur frequently; in some rural areas, 15 or more years may pass before enough changes occur to affect the utility of the maps. The current practice is to review changes in each area periodically, and, within the limitations of funds available, to revise the original map drawings and publish a new edition when the changes are deemed to be numerous enough and important enough to warrant such action.

About 20 percent of the funds in the current program for this subactivity are contributions from States for cooperative programs. It is expected that in 1965 some of the larger revision projects will be financed in this way in California, Connecticut, Florida, Indiana, Massachusetts, New York, Ohio, Tennessee, and Virginia. These projects are designed to keep the 7½-minute maps of each of these States continuously up to date.

SOURCE OF FUNDS

Those funds that have been available for map revision and maintenance and those expected for fiscal year 1965 are as follows:

| | Amount available, 1963 | Estimate, 1964 | Estimate, 1965 |
|---|---|---|---|
| Source: | | | |
| Direct appropriation | $2,443,059 | $2,270,000 | $2,300,000 |
| States and municipalities | 494,285 | 550,000 | 550,000 |
| Total | 2,937,344 | 2,820,000 | 2,850,000 |

(c) *Small-scale and special mapping.*—The estimate of $1,311,000 is an increase of $361,000 over fiscal year 1964. This increase will allow resumption of work on the National Atlas; $15,000 of the amount is for increased pay costs.

This subactivity includes the cartographic and printing operations necessary to compile special maps from available field and photogrammetric surveys, or from other maps used as source material. It may also include original surveys for maps to be published at scales smaller than 1 mile per inch. The principal work included in this program consists of:

(1) The National Atlas of the United States, with maps illustrating various types of geographical, physical, economic, and social information.
(2) 1:250,000-scale series.
(3) International Map of the World (IMW) series, at 1:1,000,000 scale.
(4) State map series at 1:500,000 scale, in base, highway and contour, and shaded-relief editions.
(5) Metropolitan area series, at 1:24,000 scale.
(6) National park series, at various scales.
(7) Topographic maps of Antarctica, at various scales.
(8) Intermediate-scale series (1:62,500 maps made from existing 7½-minute maps and published as 15-minute quadrangle maps).

NEED FOR INCREASE

Work on the National Atlas of the United States began in 1962, after the Secretary of the Interior approved a recommendation by the National Academy of Sciences that the Survey undertake this long-awaited project. The Atlas will provide to users of geographic data a composite record of physical, historical, economic, social, cultural, and other information from a wide variety of Federal, State, and other sources. More than a dozen agencies, organizations, institutions, and individual scholars have so far participated in the creation of maps for the Atlas, and many more have indicated their willingness to do so in the future. A marketing survey revealed that the Atlas project will be essentially self-liquidating through the sale of at least 15,000 volumes at an estimated price of $50 each and immediate sale of individual sheets as they are issued.

PLAN OF WORK

The program for this subactivity is developed from requests by Federal and State agencies and from various indications of need throughout the country

reflecting the national interest. The work is planned, within feasible limits, to fulfill these requirements.

Work on the National Atlas program will be resumed and some major segments of the Atlas will be completed in fiscal year 1965.

Through agreement with the Army Map Service, the Geological Survey has assumed the responsibility for completing and maintaining the 1:250,000-scale map series, inasmuch as these maps have important civilian uses. A program for continuous revision of the 1:250,000-scale maps is underway.

As a result of international agreements on specifications in 1962, the Survey has resumed work on the U.S. part of the worldwide million-scale series of topographic maps (International Map of the World). At least one completed map in this series is planned for each year. The Lake Superior map is now in work.

Work will continue toward completion of 1:500,000-scale State maps for the 20 States which are not yet covered by maps at modern standards in this series.

Metropolitan-area maps combine several 7½-minute topographic quadrangle maps into one map covering an entire metropolitan complex. Of the 215 areas designated by the Bureau of the Census as standard metropolitan statistical areas about 150 cities cover a sufficient area for a metropolitan-area map. The long-range plan is to produce maps in this series for all appropriate cities when new 7½-minute quadrangle maps become available. Work will continue on this program in fiscal year 1965.

It is planned to continue production of maps in the national park series for all national parks and monuments, except those that are of insufficient size to warrant separate coverage. This series is compiled from source data developed from the standard quadrangle mapping program.

The 1:62,500-scale maps have served many purposes as intermediate-scale maps. These maps are prepared by reducing 7½-minute maps, redrafting at 1:62,500 scale, and publishing in 15-minute quadrangles. This program will be continued during fiscal year 1965.

SOURCE OF FUNDS

Funds available for this subactivity are as follows:

| Source | Amount available, 1963 | Estimate, 1964 | Estimate, 1965 |
|---|---|---|---|
| Direct appropriation | $1,292,658 | $950,000 | $1,311,000 |
| States and municipalities | 16,722 | 5,000 | 10,000 |
| National Science Foundation | 330,482 | 363,000 | 385,000 |
| Total | 1,639,862 | 1,318,000 | 1,706,000 |

OTHER OPERATIONS

In addition to work carried out under its regular subactivities, the Topographic Division also performs some work within its field of competence, on a reimbursable basis. One of these activities is technical assistance to other nations through cooperation with such organizations as the Agency for International Development and the United Nations. This cooperation occasionally requires the services of division personnel in foreign countries, on a reimbursable basis, in support of technical or scientific projects, and the technical training of foreign nationals.

The kinds and amounts of reimbursable work under these other operations are listed below:

| Reimbursable work | Amount available, 1963 | Estimate, 1964 | Estimate, 1965 |
|---|---|---|---|
| Cartographic operations for other Federal agencies | $60,347 | $58,000 | $64,000 |
| Sale of photo copies of aerial photos, map manuscripts and other data: | | | |
| Other Federal agencies | 204,779 | 233,000 | 290,000 |
| Non-Federal agencies | 148,021 | 170,000 | 170,000 |
| International activities | 60,000 | 60,000 | 60,000 |
| Sale of personal property: Non-Federal agencies | 76,913 | 65,000 | 65,000 |
| Total | 550,060 | 586,000 | 649,000 |

## Geologic and Mineral Resource Surveys and Mapping

The estimate of $17,510,000 is an increase of $1,250,000 over 1964. The increase includes $265,000 for increased pay costs and $985,000 for an accelerated program in support of the Upper Mantle project, described below.

### GEOLOGIC RESEARCH FUNDAMENTAL TO NATIONAL PROSPERITY

Minerals, mineral fuels, and the land itself are the essential building blocks of our industrial structure and the principal ingredients in our economic growth and prosperity. Through its geologic and mineral resource surveys and mapping activity, the Geological Survey seeks the knowledge essential for the intelligent exploration, development, and use of these resources—knowledge that (1) permits the Federal Government to appraise the Nation's resource base and to establish policies that will encourage wise development and use of these resources, and (2) assists private enterprise in its search for economic sources of mineral raw materials, and in its use of land for highway construction, and urban and other engineering developments. The resource base of the Nation can be extended both in magnitude and variety through geologic research; indeed, it should be emphasized that our present base cannot be maintained without geologic research.

Geologic and mineral resource surveys and mapping is a long-range continuing activity designed specifically to:

(1) Yield geologic maps, in detail adequate for modern needs, of all parts of the United States, its territories, and possessions.

(2) Provide basic geologic, geophysical, and geochemical data and develop new and refined techniques essential to the increasingly difficult and crucial task of finding new mineral and mineral fuel deposits to maintain reserves necessary for our economy, national welfare, and defense.

(3) Provide the Federal Government with background data and resource appraisals needed in making policy decisions regarding mineral raw materials.

(4) Provide basic geologic data needed to implement the study, appraisal, and development of water resources; needed as background in modern soil studies; and needed to help solve land utilization, health, and welfare problems.

(5) Provide long-range research into basic geologic principles and processes to extend the frontier of geologic knowledge and provide basic data for future applied research programs.

(6) Provide the general public with a better understanding of the geologic history of the many natural phenomena displayed throughout the Nation, and of the geologic processes that resulted in their development.

Aggressive steps must be taken to replenish those resources that will soon be exhausted at current rates of consumption. This calls for more precise knowledge of the constitution and distribution of the materials of the earth's crust, a better understanding of the geologic processes that affect the earth's materials and an increased knowledge of the nature of the mantle that underlies the earth's crust, including those parts that underlie the oceans.

### UPPER MANTLE PROJECT

The upper mantle project is a cooperative worldwide program whose specific goals are to determine the variations of the physical and chemical properties of the outer 1,000 kilometers of the earth, the movements of material in the mantle, and the sources of energy within it. This knowledge is fundamental to understanding of the processes through which the crust of the earth has evolved. Such understanding is necessary for: (1) the intelligent exploration of hidden mineral resources; (2) the prediction of such destructive phenomena as earthquakes and volcanic eruptions; and (3) the application of geology to engineering problems such as bridge, dam, highway, and building construction. A knowledge of the nature of the earth's crust and upper mantle has direct applications also to the fields of communications, to detection of underground nuclear explosions, and to oceanography. The $985,000 increase is for investigations that the Geophysics Research Board, National Academy of Sciences, has specifically recommended as part of the Survey's contribution to the upper mantle project.

*Analysis by subactivities*

| Subactivity | Amount available, fiscal year 1963 | Amount available, fiscal year 1964 | Estimate, fiscal year 1965 | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Field and laboratory projects in economic geology | $3,301,358 | $3,469,000 | $3,651,000 | +$182,000 | +$57,000 | +$125,000 |
| (b) Field and laboratory projects in regional geology | 7,116,918 | 7,289,000 | 7,648,000 | +359,000 | +134,000 | [2] +225,000 |
| (c) Field and laboratory projects in experimental geology | 4,336,332 | 4,855,000 | 5,427,000 | +572,000 | +62,000 | [2] +760,000<br>[3] −250,000 |
| (d) Field and laboratory projects in engineering geology [4] | 613,093 | 647,000 | 784,000 | +137,000 | +12,000 | +125,000 |
| Total | 15,367,701 | 16,260,000 | 17,510,000 | +1,250,000 | +265,000 | +985,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.
[2] Program increases for upper mantle project.
[3] Amount available in 1964 for renovation of Isotope Geology Laboratory in Denver; in 1965 these funds are urgently needed to accelerate high priority programs in economic and engineering geology and comprise the program increases for these two subactivities.
[4] A new subactivity to centralize continuing activity in this increasingly important field.

FIELD AND LABORATORY PROJECTS IN ECONOMIC GEOLOGY

The estimate of $3,651,000 is an increase of $182,000 over 1964. The increase includes $57,000 for increased pay costs and a $125,000 transfer from "Experimental geology" subactivity (see above table) for new work in resource field.

*Need for increase.*—The increase in 1965 is needed to expand and accelerate that portion of the program dealing with the appraisal of the mineral and fuel resources of the United States and the world.

The Resources Research Group (for resource appraisal, evaluation, and research) was formed during fiscal year 1962, by reconstruction of existing units, to lay more direct emphasis on the compliation and analysis of data on resources of minerals and fuels and to accelerate work on techniques bearing on the appraisal, discovery, and development of mineral and fuel resources. The demand for resource data, both on a regional and national basis, has increased steadily during the past several years. At the present time this group, at the request of Members of Congress, is preparing resource reports on several of the Western States, and estimates on national and world sources of energy are being prepared to meet requests from several investigating groups. During fiscal year 1965, work on State and regional compilations will be continued and a national summary—the first systematic analysis since 1946—will be undertaken.

As pointed out by several reports, available data on reserves and resources of petroleum and other minerals are inadequate, particularly because they do not take account of probable and possible reserves. The main reason such estimates are not made, or are not adequate when they are, is that methods for estimating the extent of mineral deposits in advance of complete exploration are poorly developed. As a first step in preparation of better estimates of potential supplies, research will be undertaken to improve methods of reserve appraisal, and part of the increased funds requested for 1965 will be used for that purpose.

*Importance of work.*—The continued growth and expansion—indeed the very existence—of an industrialized nation such as the United States depends upon the availability of mineral and fuel resources. In recent years, the United States has become increasingly dependent on foreign sources for both metals and petroleum and while this trend may continue for a time, the availability of foreign sources will diminish as other nations industralize. Moreover, the total of known world resources of many minerals is not adequate to meet growing needs for more than a decade or so. New supplies must be continually sought and developed, therefore, and we must look to domestic sources as our chief mainstay for the future. The Geological Survey's investigations in this field develop methods of exploration, establish guides useful in prospecting, and outline favorable areas for the occurrence of concealed deposits and in these and other ways lay the ground work for efficient and effective exploration and development of mineral resources by industry.

PLAN OF WORK

Detailed geologic mapping and related field and supporting laboratory studies are in progress and will continue on (1) base and ferrous metals, including copper in the Western States; lead, zinc, and iron in Wisconsin, Michigan, and the southeastern States; and many other less common metals; (2) light metals and industrial minerals, such as beryllium in Alaska, Nevada, Colorado, and Utah; phosphate in California; borates in California; and titanium, graphite, asbestos, zeolites, and quartz sand; (3) rare but strategic metals such as selenium, germanium, rhenium, niobium, cesium, and scandium; (4) organic fuels, including oil and gas in California, Kansas, and other States; oil shale in Colorado and Wyoming; and coal in the Western States, Pennsylvania and Kentucky, and elsewhere; (5) radioactive materials, including uranium and thorium in several Western States; and (6) geochemical and other methods of modern field prospecting for specific mineral commodities. The data from the above program, in addition to aiding directly in the search for new mineral deposits, provide information on the magnitude of our resources essential for national policymaking and planning related to economic development, utilization of the public lands, and national security. In addition, special studies and advisory services required by the Office of Minerals and Solid Fuels are also included in this subactivity.

FIELD AND LABORATORY PROJECTS IN REGIONAL GEOLOGY

The estimate of $7,648,000 is an increase of $359,000 over 1964. The increase includes $134,000 for increased pay costs.

*Need for increase.*—Of the total $225,000 increase for program, $200,000 is for compilation of geologic maps at a scale of 4 miles to the inch, and $25,000 is for gravity surveys. These items are in support of the U.S. program for the upper mantle project.

Geologic maps are indispensable tools in the interpretation of geophysical data to be gathered in connection with the upper mantle project. Geophysical measurements must be made with instruments placed at or near the earth's surface, so the instrumental readings are affected by the surface rocks. The effects of the surface rocks must therefore be reckoned with in determining the effects due to the rocks at depth. In addition, the nature and structure of the rocks at the surface provide important geologic clues to the nature and structure of the rocks at depth. Geologic maps at a minimum scale of 4 miles to the inch are essential for this purpose. Such maps are now available for only about half of the transcontinental strip that will be the principal target for geophysical investigations, and even where geologic information does exist, there is a need to bring together this information from scattered sources and compile it into geologic maps of a uniform series. Some State geological surveys, notably California, Utah, Texas, and Tennessee have programs underway that will provide some of the needed coverage. The proposed increase of $200,000 is for compilation and geological reconnaissance in some of the most critical gaps in the southwestern and southeastern States.

Gravity measurements supplement explosion seismology and other geophysical techniques for the interpretation of buried crustal features, and are comparatively inexpensive. The requested increase of $25,000 is needed for gravity studies in the areas where crustal structure will also be studied by other methods.

*Importance of work.*—Regional geologic studies are the means by which we learn, in detail, what kinds of rocks occur in what places. The information, once obtained, is presented in the form of geologic maps and reports. Without knowledge of the distribution of rocks at and near the earth's surface, we are needlessly handicapped in all types of endeavor that involve use or modification of the ground beneath our feet, whether these endeavors be regional resource appraisal, the search for resources, engineering operations, or scientific agriculture. Just as the nautical chart is useful, if not indispensable, to the mariner approaching shoals, so a geologic map and the knowledge it represents can be indispensable to anyone venturing below the surface of the ground. Successful techniques of mineral and petroleum exploration all presuppose a knowledge of where to expect certain rocks or geologic structures; this is why the first step in mineral and petroleum explorations normally involves geological and geophysical mapping.

The Geological Survey and other institutions are being called upon at an increasing rate for information to be used in regional resource appraisals of various sorts. Existing knowledge of the basic geology of many areas is far from adequate to make these appraisals as useful as they should be. Questions must often be answered on the basis of scattered observations made decades ago, simply because

comprehensive or up-to-date information does not exist. Geologic investigations are necessarily time consuming. It may be estimated that some 15,000 man-years have been expended in the past by Federal, State, and private institutions in regional geologic investigations, yet geologic maps at a scale of 1 mile per inch or larger have been published for only about 17 percent of the area of the United States, and many of these are already obsolete. For the remaining 83 percent of the Nation, the geologic information available is not detailed enough for most purposes, and for many areas, there is almost no information at all. This situation can be improved only by a much accelerated program of regional geologic investigations, so that this information is actually at hand when it is needed. To aim for complete large-scale geologic map coverage for the entire Nation is to follow the lead of other highly industrialized nations in anticipating the needs that the future will bring.

PLAN OF WORK

Most of the effort in this subactivity is devoted to studying the geology of specific areas. Geologic maps, principally at scales of 1 : 24,000 (1 inch equals 2,000 feet) and 1 : 62,500 (about 1 inch equals 1 mile) are basic products of this work, although in areas of complex geology, particularly, many of the features and interpretations that are of greatest importance to users do not lend themselves to representation on a map and must be supplied in accompanying reports. Our efforts in regional geologic mapping are being concentrated into specific groups of quadrangles, or "target areas." This is to permit a more concentrated attack, by several men, on major geologic problems that encompass large areas. It is more efficient to study groups of quadrangles than to study isolated quadrangles singly; experience or information gained in one quadrangle will commonly have application in one or more neighboring quadrangles, and make it easier and quicker to decipher the geology of these adjoining quadrangles.

A small part of our present effort is devoted to preparation of geologic maps at a scale of 1 : 250,000 (1 inch equals about 4 miles). In the conterminous United States, these maps are prepared by a combination of new reconnaissance field work and compilation of data from existing maps. In Alaska, the 1 : 250,000 mapping program is essentially all new reconnaissance mapping in areas where very little is now known about the geology.

Considerable effort is also devoted to synthesizing and interpreting geologic knowledge for public use. Paleotectonic maps, for example, summarize what is known of the rocks of a given geologic era over the whole United States, unlike standard maps which depict all the rocks exposed in a specific area.

The field mapping program is made possible by the active collaboration of paleontologists and geophysicists, the former aiding primarily by using fossils to define the age and environment of specific formations, and the latter by using physical properties of rocks to determine more about their distribution, both close to and far below the surface, than can be determined from inspection of scattered exposures at the surface.

FIELD AND LABORATORY PROJECTS IN EXPERIMENTAL GEOLOGY

The estimate of $5,427,000 is an increase of $572,000 over 1964. The 1965 estimate includes $62,000 for increased pay costs, $760,000 for program increases, and a decrease of $250,000 that was provided in 1964 for renovation of laboratory space in Denver for work in isotope geology. The nonrecurring item of $250,000 is deducted from this subactivity and offset by increases of $125,000 for economic geology and $125,000 for engineering geology.

*Need for increase.*—An increase of $760,000 in 1965 is needed for experimental work in support of the upper mantle project, as recommended by the National Academy of Sciences. The proposed experimental investigations would contribute to the upper mantle project through (1) field geophysical studies—including seismic, gravity, geomagnetic, heat flow, and electrical measurements—of the outer 1,000 kilometers of the earth (the region which is accessible by present technology); (2) laboratory study of the physical and chemical properties of rocks and rock-forming minerals at temperatures and pressures approximating those in the lower crust of the earth; (3) direct observation, at the Survey's Hawaiian Volcano Observatory, of material derived from the mantle through volcanic eruption and of the tectonic events attendant to such eruption; and (4) dating of past crustal disturbances by means of radioactive isotopes.

*Importance of work.*—Experimental geology, when coordinated with a program of field studies, is essential in advancing knowledge of the physics and chemistry of the earth and of the processes by which it is continually being modified. Experi-

mental studies contribute new concepts that provide both a framework and the limitations into which geologic interpretation must fit, and they help to develop new tools and techniques that may be used to complement and to assist in the interpretations of field investigations. For example, the remote sensing techniques currently under investigation include infrared sensing systems that provide detailed data relating to the patterns of thermal emissions from the earth, and which, when correlated with the geology, give additional information on the nature and structure of the earth's crust.

These basic, long-range investigations provide fundamental information on the nature and composition of the earth's crust that is necessary for the intelligent development of the Nation's resources, particularly of the rarer elements which are receiving ever-increasing attention.

PLAN OF WORK

In experimental geology, a wide variety of investigations are underway that are designed to integrate the fields of chemistry and physics to geology. These include investigations in (1) experimental geochemistry and mineralogy; (2) field geochemistry and petrology; (3) isotope geology; (4) geochemical census (abundance and distribution of elements in the earth's crust); (5) crustal studies; (6) theoretical geophysics; and (7) research on analytical techniques.

FIELD AND LABORATORY PROJECTS IN ENGINEERING GEOLOGY

The estimate for this new subactivity of $784,000 is an increase of $137,000 over 1964. The increase includes $12,000 for increased pay costs and $125,000 transferred from experimental geology subactivity.

*Need for increase.*—The increase is needed to expand the present program of engineering geologic studies in fast-growing urban and industrial areas and to continue work on the application of geophysical methods to engineering construction and related land use problems. The Survey's current urban program covers only 12 of the nearly 200 rapidly expanding metropolitan areas of the United States that have more than 50,000 people and require engineering geologic studies for judicious planning of urban and industrial growth. Boston, Mass., Charleston, S.C., Atlanta, Ga., San Diego, Calif., and Phoenix, Ariz., are typical examples; in these cities population growth in the past 10 years ranged from 24 to 99 percent. In fiscal year 1965, engineering geologic studies are planned for two of these metropolitan areas.

Engineering properties of earth materials determine, in part, how the land can be most effectively utilized. Measurement of these properties can best be made by geophysical seismic and electrical methods, either in bore holes or by surface testing. New equipment designed by our Denver Laboratory and tested at the Nevada Test Site should be put in use to measure the bulk engineering properties of rocks that are important in major urban construction programs.

*Importance of work.*—Geologic information is a necessary prerequisite for the efficient and economic use and development of the lands in the Nation's rapidly growing metropolitan areas. Engineering geologic studies provide results that can be directly applied to land development and construction problems. For example, engineering geologic mapping completed as part of our urban studies has identified potential landslide areas in Seattle, Los Angeles, San Francisco and our Nation's Capital. Geologic mapping alone can only provide data on the distribution of rock units. Laboratory analysis and geophysical studies are also necessary in any engineering study to provide data on the chemical and physical properties of the rock units. Of particular importance to engineering construction are the bulk properties of the rocks. Techniques to determine these properties are needed to supplement the geologic mapping and laboratory studies.

PLAN OF WORK

Work underway in this subactivity includes geologic mapping and related laboratory and geophysical research on areas of land reclamation, of highway construction, and of rapid urbanization. Our program in connection with the Straight Creek highway tunnel under the Continental Divide west of Denver has provided a significant contribution to the science of constructing major underground facilities. Detailed geologic mapping enabled our geologists to predict the types of rocks to be encountered in the tunnel, thereby aiding engineering planning and making possible a reduction in the estimated cost. Further work is planned during tunnel construction in order to evaluate and refine the

techniques for application to future feasibility studies. Laboratory analysis of rocks made as part of the urban geologic studies aided in solving the major landslide problem at Rapid City, S. Dak. Additional studies in our Denver Laboratory on lightweight aggregate and strength of rocks under varying climatic and geologic conditions are supporting the field studies in San Antonio, Tex., Salt Lake City, Utah, and Great Falls, Mont., with data pertinent to preparation of engineering geologic maps of these areas.

### Marine Geology and Hydrology

The estimate of $998,000 is an increase of $500,000 over 1964.

Geologic and hydrologic knowledge of the oceans contributes materially to the Nation's economy, to national security, and to the health and welfare of man: the oceans and ocean floors have vast undeveloped resources of energy, minerals and food which are needed to maintain an expanding economy. They are the most important barrier to invasion from overseas. Their beaches, islands, reefs, and life are among the Nation's most important recreational resources.

Geologic and hydrologic surveys and studies of the ocean floor will contribute specifically to the following aspects of national security and growth of the Nation's economy:

(1) Location and evaluation of mineral and mineral fuel resources of the ocean and ocean floor that have potential interest to the mining and petroleum industries.

(2) Identification and mapping of geologic and hydrologic conditions and appraisal of related marine processes that apply to man's engineering activities both along the coasts and on the floor of the oceans, including conservation and development of beaches and other areas for recreation.

(3) Determination of the relations between geologic, hydrologic, and biologic conditions and processes which will be of use in development of commercial and recreational biologic resources of the oceans, and will provide knowledge concerning the formation of rocks, petroleum, and other resources.

(4) Determination of geological, geophysical, and hydrologic conditions and processes that have immediate and potential importance to the operation of vessels on and within the oceans and to the search for submerged objects such as submarines and mines within and beneath the oceans.

(5) Assessment of the relations of water beneath the earth's surface to water of the oceans, including the effects of sea-water encroachment on the occurrence, availability, and contamination of fresh-water supplies.

(6) Evaluation of the effects of discharge from the land of water, sediments, and wastes on the marine environment.

(7) Accomplishment of long-range research on basic geologic and hydrologic principles and processes which will produce data for future applied research programs and provide knowledge concerning the origin, history, and cultural aspects of the oceans.

#### LONG-RANGE PLANS

The Geological Survey's current program in marine geology and hydrology is designed to provide a firm foundation for future studies within oceanic areas. Abundant geologic information for land areas bordering the Atlantic Ocean is being assembled and analyzed to form a basis for interpretation of data collected offshore. The amounts and composition of water, sediments, and wastes discharged from land areas are being determined in order to evaluate their influence on the marine environment. General information concerning the composition and structure of the ocean floor along the east coast is being obtained to define areas of significance for future detailed study. Where sufficient information exists, within bays, estuaries, and along the coasts, individual detailed studies are being initiated to develop techniques which can be applied to the solution of much broader problems.

Operations comparable to those now underway along the east coast will be initiated along the Pacific coast during fiscal year 1965 and along other coasts of the United States during subsequent years. As these operations progress and specific objectives and problems are defined, emphasis of the program will be shifted toward detailed mapping and studies, and toward extension of activities seaward to the ocean basins. Concurrently, coordination and support of related studies within other programs of the Geological Survey and within oceanographic programs of other Federal agencies will be continued.

The present and future plans represent an integral part of the national oceanographic program developed by the Interagency Committee on Oceanography and approved by the Office of Science and Technology and the Federal Council

for Science and Technology. Some existing activities and many planned for the future entail active cooperation with other Federal agencies, private organizations, and industry.

*Need for increase.*—The requested increase is needed to meet increased costs of projects begun during fiscal year 1963, to provide support to interagency oceanographic activities in which the Survey participates, and to initiate studies of bays and near-shore areas along the west coast of the United States, including a joint study with the Coast and Geodetic Survey of the Pacific Continental Shelf and slope. The formal program initiated during fiscal year 1963, has been maintained at a fund level that is appreciably below the level considered desirable withing the national oceanographic program as developed by the Interagency Committee on Oceanography.

The major project begun during fiscal year 1963 was a planned 5-year reconnaissance study of the Atlantic Continental Shelf and adjacent marine areas from Maine to Florida undertaken in cooperation with the Woods Hole Oceanographic Institution at Woods Hole, Mass. During the first 2 years, emphasis of this project has been directed toward establishment and equipping of laboratories, collection and analysis of existing data and samples supplied by other laboratories, and short cruises to obtain new data and samples from the sea floor and to develop techniques, near the New England States. During fiscal year 1965, longer cruises to study the southern portions of the shelf along the southeast coast of the United States are planned. The longer cruises and full utilization of techniques which are now operational involve increased costs which must be met for efficient and successful continuation of this project.

A very modest program to study geologic and hydrologic processes within bays was also started during fiscal year 1963 at Willapa Bay, Wash. Plans for fiscal year 1965, include expansion of this program to determine the dispersal of the water and deposition of the sediments and related constituents within the bay.

Of the amount requested for fiscal year 1965, about $25,000 is needed for support of interagency activities related to the Geological Survey's program. This amount includes $20,000 for support of the National Oceanographic Data Center which is assembling data from many sources that will be of use in present and planned investigations in marine geology and hydrology.

In order to outline and assess economic resources and bottom conditions that are important for future development of resources and defense of marine areas adjacent to the United States, the Geological Survey, and Coast and Geodetic Survey are planning a joint study of the marine geology and hydrology of the Continental Shelf and slope along the west coast. The scope and objectives of the study will be similar to those of the cooperative Geological Survey and Woods Hole Oceanographic Institution investigations on the Atlantic Continental Shelf. Within the program on the west coast, the Geological Survey will be responsible for all operations on land, including laboratory study of samples and data collected at sea and for the acquisition and analysis of geological and geophysical information for coastal areas that are needed to interpret the offshore data. Scientists of the two organizations will collaborate in the collection of samples and data aboard Coast and Geodetic Survey vessels and in the interpretation and publication of results.

In addition to the joint studies with the Coast and Geodetic Survey, the Geological Survey also plans a detailed study of San Francisco Bay, Calif. Rapid development of the bay area has created an urgent need for much more information on the resources of the floor of the bay, on foundation conditions within the bay and along its shores, on the disposal of wastes within the sediments of the bay, on the effects of dredging within the bay and use of dredged material to make new land along the shores, and on sources of fresh water within sediments on the floor of the bay. The types of rocks and sediments adjacent to and within the bay, the discharge of California's two largest rivers into the bay and the frequency of strong earthquakes within the bay area present geologic and hydrologic conditions that are of critical importance to the economy and to the health and welfare of the population of this rapidly developing area. This study will be coordinated with existing Geological Survey investigations of the engineering geology of large parts of the land area of the bay.

### PLAN OF WORK

The expanded research program in marine geology and hydrology in fiscal year 1965 conforms to long-range plans for laying a firm foundation for future studies of broader scope within oceanic areas. The specific activities underway or planned in fiscal year 1965 are described above.

## Water Resources Investigations

The estimate for 1965 is $20,797,000, an increase of $2,090,000 over 1964. The increase includes $288,000 for increased pay costs.

The intensity of the competition for water in the United States, as a consequence of the growth in demand and the prospect that demand will continue to increase rapidly, has heightened national concern over every aspect of water development and use. In the past 2 years, an unprecedented number of measures relating to water—water research, river basin planning, pollution, floods, saline water conversion, weather modification, to mention a few—have been before the Congress. The Senate Select Committee on National Water Resources gave focus to this resource by defining the Nation's water problems and goals and urging action. Much of the activity concerning water resources that is planned or proposed is a direct result of the recommendations of that committee.

Essential to the success of these plans that have optimum development and use of water as their common goal is adequate basic information about water as a resource. Of central concern are current plans to carry out comprehensive river basin planning. Water facts are basic to the development of water plans. Facts concerning the supply, distribution, variability, and chemical and physical quality of both surface and ground waters are fundamental to the framework of water knowledge upon which practically all water projects are based. They make possible interpretive studies of areas of potential or existing water problems and the evaluation of alternatives for water development. Water facts are indispensable to needed research on the fundamental principles of the relation of water to the environment.

It is the Geological Survey's responsibility systematically to describe the Nation's water resources systems—to obtain water facts. The Survey's long-range plan calls for obtaining basic descriptions of water resources and monitoring these resources to provide a continuing appraisal of them as extensively and intensively as the need for information requires. Basic descriptions of water resources include the collection, compilation, evaluation, and synthesis of water facts and the use of these facts to define natural and man-modified hydrologic systems. These form the basis for the interpretation of the cause-and-effect relations of water in its environment, and thus provide the Nation's water users and managers with a basis for decisions between possible choices in the development and use of water. Although impressive progress has been made in establishing networks of data collection sites and conducting local and regional appraisals, the rate of accumulation of water facts has lagged with respect to the need for them. In keeping with the goals of its long-range program, the 1965 program of the Survey will move toward alleviating some of the major deficiencies in water knowledge.

| Program element | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. Federal program | $7,094,806 | $8,557,000 | $9,997,000 | +$1,440,000 | +$140,000 | +$1,300,000 |
| 2. Federal-State program | 8,806,078 | 10,150,000 | 10,800,000 | +650,000 | +148,000 | +502,000 |
| Total | 15,900,884 | 18,707,000 | 20,797,000 | +2,090,000 | +288,000 | +1,802,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

### FEDERAL PROGRAM

The estimate for 1965 is $9,997,000, an increase of $1,440,000 over 1964. The increase includes $140,000 for increased pay costs.

The Federal program consists of investigations in which the national interest is dominant. Broad coverage in the collection of basic water data, research in hydraulic and hydrologic principles, broad areal investigations covering several States, and type studies of recurring water problems receive special attention. This program complements the cooperative programs which are financed, in part, by State and local governments.

*Need for increase.*—In 1965 the Geological Survey proposes to accelerate implementation of its plans to obtain needed water information. Recent and anticipated demands for basic facts by many water development planners throughout

the Nation have strongly indicated that the current rate of expansion of that portion of the Geological Survey's program is too modest to meet this new growth in demands for information. In 1965 increases will be directed toward the following:

(1) Collection and compilation of streamflow data. The central core of the network of streamgaging stations is the base stations, classified as "primary" and operated to provide a long-term index of streamflow for any part of the Nation. Studies show a need for 3,400 of these stations. Twenty-eight hundred are now in operation; many of these are deficient as to location or instrumentation. Included in this item are critically needed rehabilitation and upgrading of key streamflow stations and associated facilities, including two primary stations on the Colorado River.

(2) Description of ground-water systems. Large geographic areas of the Nation are underlain by extensive aquifer systems, some of which are the principal sources of ground water for municipal, industrial, irrigation, and other water supplies. Among the many such systems are the sand and limestone aquifers of the Atlantic and gulf coastal plains, the deep-lying sandstone aquifers of the upper midcontinent, those in the High Plains, the Great Basin, and elsewhere. Small parts of these systems have been described in the many county and other area ground-water studies made by the Geological Survey. To date, only about 1 million square miles, or a little more than 30 percent of the United States, has been covered by ground-water studies. The goal is to obtain basic descriptions of the important aquifer systems underlying about 75 percent of the country by 1973. These descriptions would show the areal extent and thickness of the aquifers; the physical characteristics that control the rate, direction, and quantity of water movement; and the changes that take place within the systems.

To obtain the essential basic information for the description of aquifer systems, the nationwide network of observation wells must be expanded. The network provides facts pertaining to changes of ground water in storage, relation of ground water to surface water, changes in the characteristics of ground water, and the physical environment in which water occurs—lithology, composition, thickness, and structure of aquifers and their porosity, permeability, and storage capacity. It serves to identify such things as areas in which ground-water levels are declining or rising and changes in the amount and suitability of ground water in storage. In addition to providing information needed for the description of aquifer systems, the ground-water network furnishes basic data needed for basinwide water resources studies and for the solution of ground-water problems.

(3) Benchmark network. A start has been made in establishing a network of benchmark areas to distinguish natural variations in water supply from those caused by man. For optimum benefits to future appraisal studies, the remainder of this network of stations in areas where the water resources have been, and will continue to be, free from influence by man's activities should be placed in operation within the next several years. Seven areas are in operation and 10 more will be established in fiscal year 1964. About 100 areas are needed for adequate nationwide coverage.

(4) Basinwide water resource studies. National needs in comprehensive river basin planning efforts, as evidenced in pending legislation, require that the Survey expand its efforts on studies which will provide knowledge of interrelationship among the factors in hydrologic systems which will directly or indirectly determine the effect of project development on the hydrologic environment. Such knowledge is prerequisite to optimum planning.

(5) Payment to Employee Compensation Fund pursuant to Public Law 86–767, section 209.

PLAN OF WORK

*Analysis by subactivities*

| Subactivity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Surface-water investigations | $3,058,147 | $3,702,000 | $4,277,000 | +$575,000 | +$60,000 | +$515,000 |
| (b) Ground-water investigations | 2,317,812 | 3,075,555 | 3,875,591 | +800,036 | +50,000 | +750,036 |
| (c) Quality-of-water investigations | 1,716,235 | 1,744,000 | 1,774,000 | +30,000 | +30,000 | ---------- |
| (d) Employee compensation payments | 2,592 | 35,445 | 70,409 | +34,964 | ---------- | +34,964 |
| Total | 7,094,806 | 8,557,000 | 9,997,000 | +1,440,000 | +140,000 | +1,300,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

(a) *Surface-water investigations.*—The subactivity includes collection and computation of basic streamflow data, analysis, and interpretation of these data for specific purposes, and basic and applied research in the occurrence, movement, and measurement of surface water.

A significant improvement in the method of recording and processing streamflow data and other water facts has been achieved through automation. Basic components of the system are a digital recorder, a translator, and a computer. In order to reap the maximum benefits, in terms of savings in manpower, increased accuracy, speedup in compilation and publication of data, and solution of complex hydrologic problems, 5,000 digital recorders should be purchased and installed as quickly as possible. Toward this end, 780 recorders were operational at the close of fiscal year 1963, and an additional 1,200 stream-gaging stations are scheduled for automation during fiscal year 1964. Conversion of 5,000 stations is expected to be completed in fiscal year 1968.

(b) *Ground-water investigations.*—The subactivity includes systematic collection, analysis, and interpretation of hydrologic and geologic data, basic and applied research in fundamental principles of ground-water hydrology, and to improve the scope and methods of investigations.

(c) *Quality-of-water investigations.*—This subactivity includes collection and interpretation of data on the source of chemical and physical characteristics, quantity, movement, and distribution of suspended and dissolved substances in water. Research dealing with sediment movement in streams and the chemistry of surface and ground water are continuing parts of this subactivity.

(d) *Employee compensation payments.*—The estimate is for the Geological Survey payment to the Bureau of Employee Compensation to cover payments made during fiscal year 1963 on account of Survey employees injured since December 1, 1960 (Public Law 86–767, sec. 209).

FEDERAL-STATE PROGRAM

The estimate for 1965 is $10,800,000 an increase of $650,000 over 1964. The increase includes $148,000 for increased pay costs.

Appraising the Nation's water resources is a large task. Because it is large, and because need for water information extends through all levels of government, it is advantageous to both the Federal Government and the States to share this task to the greatest extent possible consistent with their common interests and responsibilities. The size and scope of the cooperative program clearly reflects the interest of State and local agencies in being "partners" in this nationwide water-resources appraisal task. All of the States plus American Samoa, Guam, Puerto Rico, the Virgin Islands, and the District of Columbia share in water resources investigations through financial cooperation with the Geological Survey. Over 300 individual State and local agencies participate. Federal-State cooperation began in 1895 and since that time Federal funds have been available annually for this purpose. Since 1929, the appropriation language has required that the Survey's share not exceed one-half the total cost of investigations.

*Need for increase.*—Plans for cooperative investigations are formulated at the local level, with cooperating officials and field representatives of the Survey

working together to develop programs tailored to fit local needs and, at the same time, to contribute to the national need for a comprehensive appraisal of water resources. Discussions with cooperators reveal a need for substantial increases in many State and local cooperative programs; largely basic-data collection and analytical and interpretive studies. The requested increase in funds to support this activity is based on estimates by cooperating agencies of increases in contributions requiring matching by the Survey. Among the kinds of work most in need of expansion, as shown by requests from cooperators, are definition of the extent and frequency of flooding in urban areas; studies of flood characteristics of small streams—urgently needed as a planning aid in highway design and for other purposes; appraisals of ground water supplies; investigation of possibilities of artificially recharging ground water aquifers from surface water supplies; studies of the interrelationship of ground and surface waters to estimate the effects of water development on overall supplies; and studies of low-flow characteristics of streams as an aid in planning optimum development of surface water supplies.

*Plan of work.*—Much of the work done in the Federal-State program is to inventory and describe the quantity and quality of water resources of specific areas such as States, counties, cities, and particular water problem areas. In addition the program includes a variety of interpretive studies. Examples are definition of the extent and frequency of flooding in urban areas; studies of flood characteristics of small streams; appraisals of ground water supplies; investigation of artificial recharge of ground water aquifers from surface supplies; studies of interrelationship of ground and surface waters to estimate the effects of water development on overall supplies; studies of the chemical quality of both surface and ground waters in areas where contamination exists or threatens; salt water encroachment into ground water supplies; and salinity conditions in a stream basin. These studies, and many more in the Federal-State program, although linked closely to local water problems, are of substantial national, as well as local, interest because they yield information that has applicability to similar problems elsewhere. More importantly, they comprise segments of the regional or national picture.

*Analysis by subactivities*

| Subactivity | Amount available, 1963 | Amount available, 1964 | Estimate, fiscal year 1965 | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (*a*) Surface water investigations | $4,859,644 | $5,400,000 | $5,735,000 | +$335,000 | +$78,000 | +$257,000 |
| (*b*) Ground water investigations | 3,056,193 | 3,550,000 | 3,847,000 | +297,000 | +52,000 | +245,000 |
| (*c*) Quality-of-water investigations | 890,241 | 1,200,000 | 1,218,000 | +18,000 | +18,000 | ---------- |
| Total | 8,806,078 | 10,150,000 | 10,800,000 | +650,000 | +148,000 | +502,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

## Soil and Moisture Conservation

The estimate of $195,000 is an increase of $2,000 over 1964. The increase is for increased pay costs.

### PLAN OF WORK

The Survey's program consists of two parts, (1) evaluation of specific sites as possible locations for water supply and (2) research in arid-lands hydrology such as erosion and sedimentation principles, stability of river channels, effects of land treatment measures, and relations between rainfall, runoff, ground water, sediment transport, and other hydrologic factors. During 1965, both parts of the program will continue at the current level. Some current research projects will be completed during 1965, some will be expanded to increase the value of the final results, and several new studies will be initiated.

CONSERVATION OF LANDS AND MINERALS

*Analysis by subactivities*

| Subactivity | Amount available, fiscal year 1963 | Amount available, fiscal year 1964 | Estimate, fiscal year 1965 | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Supervising oil and gas leases | $2,200,509 | $2,265,000 | $2,362,000 | +$97,000 | +$46,000 | +$51,000 |
| (b) Supervising mining leases | 524,868 | 550,000 | 565,000 | +15,000 | +11,000 | +4,000 |
| (c) Mineral classification | 884,802 | 930,000 | 975,000 | +45,000 | +20,000 | +25,000 |
| (d) Waterpower classification | 266,943 | 280,000 | 305,000 | +25,000 | +5,000 | +20,000 |
| (e) Connaly Act compliance | 311,933 | 376,000 | 384,000 | +8,000 | +8,000 | |
| Total | 4,189,055 | 4,401,000 | 4,591,000 | +190,000 | +90,000 | +100,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

SUPERVISING OIL AND GAS LEASES

The estimate of $2,362,000 is an increase of $97,000 over 1964. The increase includes $46,000 for increased pay costs.

*Need for increase.*—To provide funds for meeting the progressively increasing responsibilities in enforcement of the operating regulations on public, Indian, acquired, and Outer Continental Shelf leases; to provide for still further need of over-water transport to the increasing number of Continental Shelf leases and wells; for substantially increased programing and utilization of the electronic data processing (EDP) equipment for royalty accounting purposes; to provide additional petroleum engineers and supporting services for the steadily increasing exploration and development operations. The increase requested will provide 4 man-years of personal services to bring the engineering work force more nearly in line with the workload and improve supervision in the area of advanced primary and secondary recovery techniques and processes, the prevention of waste, and the determination of royalties due the United States.

*Plan of work*

| | Estimate, 1963 | Estimate, 1964 | Estimate, 1965 |
|---|---|---|---|
| Value of oil and gas produced | $1,188,000,000 | $1,281,000,000 | $1,402,000,000 |
| Royalty accruals | $166,000,000 | $175,000,000 | $188,000,000 |
| Available funds for supervision (including funds transferred from Navy) | $2,231,300 | $2,308,300 | $2,405,300 |
| Number of employees | 244 | 244 | 248 |

Supervising operations and enforcing the operating regulations pertaining to oil and gas leases issued under the various mineral leasing acts is a continuing subactivity. The work involves supervision of exploration, development, and production of oil and gas on Federal and most Indian lands in the United States, and the determination and maintenance of an accurate account of the production and of the royalties due and, when appropriate, taking such royalties in kind and disposing of them pursuant to applicable laws and regulations.

Current developments pertaining to oil and gas potentials of the Outer Continental Shelf areas of the United States continue to have a significant bearing on the actual and anticipated future workloads of this subactivity. The interest previously manifested in new areas off the Atlantic and Pacific coasts has been sustained.

Overwater transportation to offshore platforms remains a difficult phase of properly supervising Outer Continental Shelf development operations. Offshore platforms may be reached by boat, float plane or by helicopter. From the standpoint of efficiency and time saved the helicopter is the best method. During the current year the Survey is making increased use of helicopter charters and is substantially reducing its acceptance of free transportation offered by the various operating companies; because of the high cost of boats and helicopters the Survey has not purchased and operated such equipment in Outer Continental Shelf operations. Therefore, it is expected that still further increase in the use off chartered transportation will be necessary during the budget year 1965.

The decision of the Supreme Court on December 12, 1960, established 3 nautical miles seaward of the coastline as the seaward boundary of the States of Louisiana, Alabama, and Mississippi. The decision, however, did not establish the location of the coastline. The six-man committee, composed of three members appointed by Louisiana and three members appointed by the Federal Government, with a charter to resolve areas of disagreement as to the locations of the coastline, has completed its investigation and submitted its report. Unfortunately, there still remain areas of disagreement, particularly with reference to point-to-point delineation of embayments. Resolution of these differences during 1964 is still possible but may not occur until later. The final decision will affect the ownership of a goodly portion of the submerged lands. It should be noted that if this dispute is settled in favor of the U.S. Government all wells and leases lying seaward of a line 3 nautical miles from the coastline will become the sole responsibility of the Federal Government, and will add substantially to the workload of supervisory functions of the Survey. Another important phase of the ownership dispute is the sum of approximately $643 million being held in escrow by the Federal Government pending the outcome of the dispute.

On June 30, 1963, there were 908 Outer Continental Shelf leases under Federal supervision of which 57 were off California and 851 were off Louisiana and Texas. There were 3,333 oil and gas wells, 2 salt and 21 sulphur wells, completed or drilling on these leases. Production from these wells during fiscal year 1963 is estimated to have been 94 million barrels of oil and condensate, 533 billion cubic feet of gas, 451,000 long tons of sulphur, and 258,000 tons of salt, all off the coast of Louisiana. This is a substantial increase over last year.

Application of the electronic data computer to royalty accounting is increasing rapidly and is approximately according to plan. The transition from manual royalty accounting to automated royalty accounting by EDP is approximately 29 percent completed. If the transition continues according to plan it will be approximately 40 percent completed by the close of fiscal 1964, and 80 percent completed in 1965. As conversion to EDP continues, the workload of the associated postaudit of accounts function will increase. Competent accountants will be shifted from manual royalty accounting to postauditing of royalty accounts.

As the number of new discoveries and the rate of making new substantial discoveries diminishes, it is increasingly important that we continue to obtain the optimum recovery of petroleum from those reservoirs already discovered. The Survey exercises constant vigilance to see that such new techniques as air drilling, sand fracing, pressure acidizing, and multiple completions are applied to primary recovery of petroleum from Federal and Indian leases, and that such accepted secondary recovery methods as waterflooding, repressuring, combustion in situ, or miscible fluid drive are utilized wherever they are required. The complete and precise engineering work necessarily precedent to the application of any of these techniques becomes more complex each year and continues to require more and more time of the Survey's supervisory and engineering staff. Technically correct well spacing for maximum recovery in new areas or zones is also becoming a complex and time-consuming problem.

In practically ever session of Congress new amendments and supplements to the mineral leasing laws are enacted with consequent new regulations. Other changes in the regulations also occur each year. The result is that the complexity of and responsibility for administrative, regulatory, and engineering supervision substantially increases each year.

### SUPERVISING MINING LEASES

The estimate of $565,000 is an increase of $15,000 over 1964. This includes $11,000 for increased pay costs.

*Need for increase.*—To provide funds for meeting the progressively increasing responsibilities in enforcement of operating regulations on public, Indian, and acquired land leases; personnel to handle normal workload increases, and to absorb the continuing increases in operating costs.

*Plan of work*

| | Estimate, 1963 | Estimate, 1964 | Estimate, 1965 |
|---|---|---|---|
| Value of minerals produced | $168,000,000 | $170,000,000 | $175,000,000 |
| Royalty accruals | $8,375,000 | $8,750,000 | $9,250,000 |
| Available funds for supervision | $525,000 | $550,000 | $565,000 |
| Number of employees | 41 | 41 | 42 |

This is a continuing subactivity responsible for the enforcement of the operating regulations under the various mineral leasing acts governing the exploration, development, and production of mineral deposits from leases on Federal and Indian lands in the United States. This function is conducted in such manner as may best serve the interests of conservation of the resources. The responsibilities include the maintenance of an accounting record of the minerals produced, the determination of the royalty liabilities, and the collection of lease rentals and royalties.

The work includes:

(1) The assembly of data from Federal and Indian lands under lease or permit being prospected for coal, potassium, phosphate, sodium, uranium, manganese, fluorspar, mica, lead, zinc, etc.

(2) The assembly of data on known and possible ore reserves in areas being mined.

(3) The assembly of data on ore reserves of quality too low to merit beneficiation by present techniques, but which may be made marketable through research and improved beneficiation processes.

(4) Approval of mine development plans and supervision and regulation of development and production operations.

(5) Attention to protective methods for workmen exposed to radiation or other mining hazards.

The workload of this subactivity is expected to show an increase during the year. Exploration for minerals (coal, copper, stone, and iron) on Indian lands, is expanding at an accelerated rate. Also, there is increased interest in coal for thermal power and petrochemicals in Arizona and New Mexico, and for thermal power in Colorado and Utah, which will substantially increase the supervisory workload.

During the budget year, the Survey proposes to further intensify the examination program by making more frequent inspections of all mining operations to effectively minimize mine hazards. To accomplish this objective, one additional engineer will be employed.

### MINERAL CLASSIFICATION

The estimate of $975,000 is an increase of $45,000 over 1964. This includes $20,000 for increased pay costs.

*Need for increase.*—The program of systematic review and classification of public land withdrawals provides valuable information with regard to the mineral resources of the public domain through detailed geologic mapping and sampling and analysis for mineral evaluation. Additional funds are needed to provide for more sampling and analyses to supplement geologic mapping in order to support the resulting classification actions. In addition, the ever-increasing demand for land for urban development imposes additional workload in the form of reports on the mineral character of lands subject to disposal. The increase will provide for approximately 2 additional man-years to handle the increased workload in the aforementioned functions.

### PLAN OF WORK

This is a continuing subactivity responsible for classifying the Federal land as to mineral character, for determining what Federal land is to be withdrawn for the purposes of investigation for leasable minerals, and for recommending the restoration of such land from withdrawal after adequate geologic mapping and classification.

The primary objectives are:

(1) Geologic mapping and investigation to determine the quality, thickness, and depth of any leasable minerals in or near areas of public lands included in withdrawals and in areas of prospective values for leasable minerals.

(2) The determination, from geological data and other evidence, of the actual or probable presence of mineral deposits of value in specific tracts or parcels of public land anywhere in the United States.

(3) The protection of the mineral values in such tracts or parcels by prevention, through timely notice, withdrawal, or classification, from disposal under nonmineral land laws.

(4) The prompt referral to the administrative and supervising agencies involved, of the geologic determinations and counsel required to effectively discharge their responsibilities.

Under the mineral leasing laws, determination and definition of the "known geologic structures" of producing oil and gas fields are the basis for differentiating

between lands subject to lease by application and those subject to lease by competitive bidding. For each lease application the Survey determines whether the land sought is within the known geologic structure of a producing field. The Survey, as required by law, reports to the Bureau of Land Management all first discoveries of oil and gas under application-type leases and discoveries of new oil and gas fields, or deposits, for their effect on rental and royalty liabilities. Reports to the Bureau of Land Management are also made on the occurrence of other leasable minerals: coal, oil shale, phosphate, potash, sodium, sulfur, and asphaltic minerals. These reports involve State selections, forest exchanges, mineral permits and leases, nonmineral entries and lands under the jurisdiction of other Government bureaus and agencies.

Expansion of industrialization in the United States, particularly in many of the Western States, is resulting in an increasing demand for land and mineral resources. This demand has stimulated the search for and development of leasable minerals on Federal and Indian lands, particularly in the public land States west of the Mississippi River. A similar interest exists in acquired and public lands east of the Mississippi River. Mineral land classification is an essential function in the administration of the mineral leasing laws which apply to Federal lands. The timely performance of this function is of particular importance if this Nation is to derive optimum benefits from the conservation, development, and production of its mineral resources.

The estimated additional increases in workload shown for 1964 and the budget year 1965 are deemed to be conservative, owing to:

(1) Substantial increases in patent cases.

(2) Increased Forest Service, Health, Education, and Welfare, General Services Administration, and Bureau of Indian Affairs requests for mineral reports.

(3) Increased State indemnity selections and exchanges.

Following is a résumé of the work planned for 1965:

(1) Prepare and revise maps showing the current status of development of about 520 producing oil and gas fields in 17 Western States where Federal lands are relatively abundant. Additional geologic mapping will be required in the Rocky Mountain and Midcontinent States.

(2) Continue the preparation and revision of maps showing mineral occurrences in public land States as an aid to classifying the lands as to their mineral content.

(3) Continue geological studies of surface and subsurface features on lands involving leasable minerals in Alaska, Arizona, California, Colorado, Florida, Idaho, Kansas, Louisiana, Mississippi, Montana, Nevada, New Mexico, North Dakota, Oregon, Oklahoma, Utah, and Wyoming.

(4) Continue geologic mapping of withdrawn lands as a means of expediting classification for minerals. Nearly 50 million acres are withdrawn awaiting mineral classification. Systematic topographic mapping and geologic investigation and mapping are prerequisites to classification of mineral lands and its restoration where appropriate. Approximately 1 million acres formerly included in withdrawals were classified during fiscal year 1963 for coal, with appropriate notification to the Bureau of Land Management. The accelerated program of geologic mapping in aid of mineral classification, which commenced July 1, 1960, is proceeding on schedule. During the current year 36 geologists are engaged in mapping about 1,500 square miles in Montana, Idaho, New Mexico, California, Utah, Colorado, Oregon, and Wyoming in the aid of classification.

### WATERPOWER CLASSIFICATION

The estimate of $305,000 is an increase of $25,000 over 1964. This includes $5,000 for increased pay costs.

*Need for increase.*—To provide for the staffing of activities in Alaska and the conterminous States. The increase will provide for salary increases already approved and for an additional 2 man-years of personal services to augment the small staff performing the waterpower classification function. In view of the increased emphasis on water resources and their utilization, the program should be expanded modestly in an orderly manner.

### PLAN OF WORK

This is a continuing subactivity. The objectives are the location, investigation, and evaluation of prospective waterpower and water storage sites on public lands, and the classification of the lands in order to protect the Government's interest in such sites. Classification formally identifies those lands that have waterpower or storage potentials and establishes controls over their disposition.

Lands so classified may be selected and used for other purposes until they are needed for a water or power development. These objectives are reached through field investigations to gather the basic data and related information needed to locate and evaluate prospective waterpower and storage sites on the public lands, and through subsequent office studies in which the basic data are analyzed and final reports are prepared. The reports provide the basis for scientific classification of lands with regard to their power and storage values. Maps and reports prepared during these investigations bring potential waterpower and storage sites to the attention of the public, and are extensively used by industry and State and Federal agencies in the preliminary planning of proposed developments. They are of particular value to the Bureau of Land Management and the Federal Power Commission in fulfilling their responsibilities in the administration of the public lands.

The ever-increasing demand for water, and the need for its conservation through storage for optimum use, emphasize the need for the search for and classification of potential storage sites, even those of comparatively small capacity. Another facet in the classification of waterpower resources is the possible use of pumped storage for meeting peakload demands and a search is being carried on for sites where such type of development may be practicable.

The large unexplored waterpower potential in Alaska requires extensive field surveys and investigations for proper evaluation. These should be carried on at an expeditious rate in order that the information will be available for use in effectively selecting and planning projects that will be most beneficial to the development of the State. Also, the areas valuable for waterpower development should be identified and protected by classification of the lands affected as soon as possible in order to prevent their selection for speculative purposes. The survey and investigation of waterpower sites in Alaska is much more difficult and expensive than in the conterminous States due to unfavorable terrain, climatic conditions, and inaccessibility.

An important continuing objective of the branch, begun in 1955, is the systematic review and reappraisal of all land classifications for waterpower and storage purposes. Lands previously classified that, on the basis of present information, do not have power value, or have insufficient power value to justify being continued in a classified status, are recommended for elimination from classifications. There are approximately 7 million acres classified or withdrawn for waterpower and storage sites, and about 1 million acres of this land have been reviewed since 1955.

The comprehensive report by the Senate select committee (Kerr committee), water resources activities in the United States, emphasized the need for the investigation, evaluation, and inventorying of all possible water development sites in order that the most effective plans can be made for the fullest possible utilization of the Nation's water resources. The Geological Survey has been engaged in a continuing program with these same objectives since 1909 in connection with its authority to classify the public lands for waterpower and water storage values. Except for Alaska, most of the sites on the Nation's public land have been identified, investigated, and classified. Much work remains to be done, however, in refining these classifications to reduce the land affected to a minimum.

### CONNALLY ACT COMPLIANCE

The estimate of $384,000 is an increase of $8,000 over 1964. This increase is for increased pay costs.

### PLAN OF WORK

The Branch of Connally Act Compliance administers the Connally Act of February 22, 1935. The act supports conservation activities of certain oil-producing States by prohibiting the interstate shipment of oil produced in violation of the State oil and gas proration laws.

The Connally Act is applicable wherever State laws limit the rate of production and prescribe conditions for producing and handling the oil. However, due to the small size of the Branch, most of its activity has been limited to 106 counties of Texas, all of Louisiana, and to Lea and Eddy Counties in New Mexico.

Examiners of the Branch, by gaging lease production, by inspection of leasehold operations, by lease visits, by checking pipelines, feeder lines, or tank batteries, by interviewing lease employees, lessees, operators, or well service company employees, and by thoroughly checking records of production and oil shipments, seek to detect violations of the State proration laws. Following such preliminary investigations and formal docketing of the cases, the Branch examiners make a

full-scale investigation, take depositions, and prepare cases against violators for submission through departmental channels to the Attorney General for prosecution.

The Branch occasionally strives to enforce provisions of the act in other States conveniently accessible from its offices in Texas and Louisiana and should extend such regulatory activity to other farther removed oil-producing States as well. Presently, all available investigative personnel and effort are directed toward the gathering of evidence and preparing cases charging violations of the Connally Act by parties charged by the State of Texas with drilling illegally deviated wells.

Under normal circumstances, due to the diversity of activities concerned in Connally Act investigations, ranging from routine office work, through records research, minute examinations of leases, refineries, tank batteries, pipelines, pumping stations, tax returns, and undercover "snooping" to the taking of depositions and the gathering of evidence, it is extremely difficult to establish an appropriate workload measurement related to manpower requirements. Due to the size of the ever-present job to be done, which has always been grossly out of proportion to the staff available to do it, we believe that manpower requirements for this work have never been met. There has been no problem of achieving a reduction in manpower requirements, but rather one of providing enough manpower to make a significant contribution toward fulfilling the objectives of the Connally Act.

Under present circumstances, where it appears that the State of Texas may continue to uncover hundreds of illegally deviated wells, the problem will be one of financing and staffing a greatly enlarged Branch if we are to deal effectively with the violations to be uncovered.

### General Administration

The estimate of $1,831,000 is an increase of $30,000 over 1964. The increase is for increased pay costs.

#### PLAN OF WORK

This activity provides for the executive direction and overall management of the Geological Survey, as well as such essential services as organization and procedures, systems development, investigations on manpower utilization, budgeting, accounting, voucher examination, internal audit, payroll, personnel, purchasing, property control, mail and messenger. It is financed from funds appropriated directly and by an assessment against reimbursements from other Federal agencies and certain nongovernmental sources.

A comparison of funds for executive direction and administration, relative to the entire program of the Survey follows:

| | Amount available, fiscal year 1963 | Amount available, fiscal year 1964 | Estimate, fiscal year 1965 | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Direct appropriation | $1,743,975 | $1,801,000 | $1,831,000 | +$30,000 | +$30,000 | ---------- |
| Assessment against reimbursable programs | 602,936 | 683,000 | 680,000 | −3,000 | +10,000 | −$13,000 |
| Total general administration | 2,346,911 | 2,484,000 | 2,511,000 | +27,000 | +40,000 | −13,000 |
| Total Survey program (excluding special-purpose buildings) | 86,553,764 | 95,818,000 | 100,311,000 | +4,493,000 | +1,440,000 | +3,053,000 |
| Ratio of general administration to total (percent) | 2.71 | 2.59 | 2.50 | ---------- | ---------- | ---------- |

[1] To provide for increased pay costs for fiscal year 1964 positions.

SPECIAL-PURPOSE BUILDINGS

The estimate of $1 million is an increase of $800,000 over 1964.

| Project | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Nuclear Research Laboratory, Denver Field Center | $51,939 | $100,000 | $1,000,000 | +$900,000 | ---------- | +$900,000 |
| (b) Preliminary design of a Geological Survey building in Washington, D.C. | ---------- | 100,000 | ---------- | −100,000 | ---------- | −100,000 |
| Total | 51,939 | 200,000 | 1,000,000 | +800,000 | ---------- | +800,000 |

NUCLEAR RESEARCH LABORATORY, DENVER FIELD CENTER

Funds in the amount of $1 million are requested for the construction of a laboratory building at the Denver Field Center, for research in isotope geology and hydrology involving radiation-emitting equipment and materials.

The use of radioactive tracers shows considerable promise as a tool to trace the course and behavior of chemicals, such as herbicides, insecticides, and detergents, which enter in increasing quantities into hydrologic systems, and to facilitate determination of dilution and rate of travel in streams of materials such as toxic or radioactive substances that could have serious impact on municipal water supplies. Laboratories engaged in analytical work—basic research or qualitative analysis—are making extensive use of nuclear radiation as the basis of modern analytical techniques. These examples of the utilization of radiation-emitting materials and equipment, suggest the potential of nuclear radiation and radioactive materials as an up-to-date tool for today's problems in geology and hydrology.

In order to maintain adequate facilities in the use of radiation-emitting materials and equipment as investigative tools, the Survey proposed a laboratory in Denver to house appropriate research and analytical groups. When design funds became available in fiscal 1963, a recognized expert in nuclear chemistry from Pennsylvania State University was retained as technical adviser and the services of an architectural firm, proficient in this highly specialized field, were obtained. With General Services Administration reviewing the procedures as well as architectural details, preliminary plans have been completed and working drawings will soon be available. A review of the building design and incorporated equipment was recently made to insure that the construction costs would remain within the amount requested. Core samples are being analyzed for foundation information and site studies have been completed.

The technical adviser and the architects have met with Bureau of Standards experts to discuss means of minimizing electrical interferences expected in a building of this type. Early recognition of problems of this type is expected to contribute substantially to efficient operation of the laboratory.

FALLOUT PROTECTION

The 1965 estimate includes funds for construction of the nuclear research laboratory at Denver which, because of the special purpose of this building and its inclusion in the Geological Survey complex at the Federal Center, will not contain fallout protection features. The Office of Civil Defense has concurred that fallout protection facilities should not be included in this laboratory.

PROGRAM OBJECTIVES

Chairman HAYDEN. Dr. Nolan, do you want to present a statement?

Mr. NOLAN. I have a formal statement which I would be glad to put in the record. I would like to highlight it and refer to some of the charts on the easel.

(The statement referred to follows:)

STATEMENT OF DIRECTOR THOMAS B. NOLAN, DIRECTOR, GEOLOGICAL SURVEY

It is a pleasure to meet with this committee again to discuss the programs of the Geological survey.

The committee is familiar with the objectives of the Geological Survey to provide data on our mineral, water, and land resources that will help this country maintain its standards of living and economic growth. The results of our studies of the occurrence of mineral and water resources and of our topographic mapping are used in many practical ways by other agencies of Government, industry, and the general public. Indeed they save many times the cost of producing them.

Recently we have given much attention to the development of plans that would spell out program objectives as completely as possible and also present a schedule for accomplishing these objectives in an orderly manner consistent with effective utilization of manpower and facilities. With the helpful comments and criticisms of many interested persons in Federal, State, and local governments, universities, and industry we have arrived at a long-range plan that we hope will be of interest to you in evaluating our funding requests. The printed document was delivered only a few days ago by the Government Printing Office.

The ultimate goals, as described in the long-range plan, and the schedules for attaining them are, we believe, clearly justified by the real benefits that will result as the maps and technical information are published. Overall policy regarding the 1965 budget has made somewhat reduced schedules necessary. We believe, however, that support for these programs is widespread and genuine, and we hope that in subsequent years we will be able to return to the schedules that have been developed. I base this remark on past experiences which show that efficiency and economy are best served by an orderly program such as the plan contemplates; delays or postponements eventually lead to costly and less effective "crash" programs.

As I have observed in another place, there appears to be a direct relationship between the economic health of the country, as measured by such indexes as the gross national product, and the increase in knowledge of the nature and extent of the resources that are basic to the national economy. The Survey s programs provide such knowledge and thus are essential elements in our national growth.

## TOPOGRAPHIC MAPPING

The goals in the national topographic mapping program are to complete standard quadrangle mapping of the Nation and to maintain these maps in an up-to-date condition. Topographic maps are widely used, of course, for such purposes as planning transportation systems, the selection of industrial sites, recreation, as three-dimensional bases for plotting and analyzing a great variety of data, comprehensive river basin planning, zoning of flood plains, and for development and administration of lands for forests, parks, wilderness areas, or many other purposes.

Requests for topographic mapping far exceed our mapping program each year. Priority requests for topographic mapping are submitted annually by Federal map-using agencies under procedures established by the Bureau of the Budget and by State sources, including officially established State mapping advisory committees. These requests are evaluated and are the basis for selection of areas for new mapping and revision.

Cooperative agreements with States help expedite progress on the Federal program. Many of the larger cooperative programs have resulted in early coverage of entire States with modern maps such as was recently completed in Ohio. Currently our largest cooperative program is with Virginia—the State is contributing $510,000 for fiscal year 1964 which is the second year of a 6-year program to complete the mapping of Virginia.

For topographic mapping, the estimate of $22,301,000 provides for a program increase of $346,000 for resumption of work on the National Atlas of the United States—a project that began in 1962. The Atlas will be a composite of information drawn from many sources, bringing into one volume a great deal of data of interest to many users.

I would like to mention just one of the new techniques being used in topographic mapping. It was developed by the Geological Survey and is called the airborne-control-survey system. A helicopter hovering at a measured distance above ground points for which positions are desired serves as a target to which distance and direction can be quickly measured. The system promises to yield dividends in expediting map-control operations in difficult terrain.

### GEOLOGIC INVESTIGATIONS

For geologic and mineral resource surveys and mapping the estimates provide $17,510,000 which includes a program increase of $985,000. Geologic and mineral resource surveys and mapping are basic to the country's economic health. They provide knowledge essential for intelligent exploration, development, and use of the Nation's mineral resources. Supplies of mineral commodities, fuels, and water must keep pace with steadily increasing consumption. Maximum utilization of supplies from domestic sources can be accomplished only through a better understanding of the composition and structure of the rocks that comprise the Nation's surface, subsurface, and adjoining continental shelves.

The program of geologic investigations includes studies in addition to those directly related to resources of minerals and fuels. Engineering geology studies have assumed increasing importance, with the spread of urbanization, to provide a sound basis for development of plans for land use which will anticipate problems related to landslides, subsidence, earthquake, and other hazards and which will provide information on conditions to be met in construction of highways, tunnels, large buildings, and other major projects. Experimental geologic studies involve the chemistry and physics of the earth and the understanding of the geologic processes operative in the past and that continue to modify the earth on which we live. Regional geologic mapping and supporting geophysical studies are the groundwork for all the investigations carried on under this activity.

Specifically, the increase requested for geologic investigations is to provide support for an accelerated program of the Geological Survey's participation in the upper Mantle project. This project is a coordinated national program to gain knowledge of that portion of the earth, just below the surficial crust, that will have direct application to an understanding of earthquakes and volcanic eruptions and, hopefully, the eventual ability to predict them; to improved long-distance communication through the mantle, rather than the air; to the VELA project for detection of underground nuclear explosions; to oceanography; and, of course, to the systematic and sound search for new sources of minerals and fuels.

### MARINE PROGRAM

The marine geology and hydrology program, with both short- and long-range importance, is based on the Survey's competence and capacity to supplement the efforts of other agencies engaged in related problems. The estimate of $998,000 provides for a program increase of $500,000. Although the request submitted here for the Geological Survey is only a small part of the cost of a coordinated program involving many Federal agencies, it is agreed that a study of marine geology and hydrology is an important part of the whole program. It is urged that the request for these funds be viewed as a component part of an overall balanced program.

In effect, the shelf areas and adjacent slopes are submerged portions of the continent and knowledge of the geology of these areas, as for the adjoining land areas, is necessary to the search for and development of their potential mineral resources.

The rapid growth of coastal communities, industry, and commerce and their need for fresh water uncontaminated by seepage from the sea; the need for knowledge of the engineering properties of sediments deposited in bays and estuaries; the conditions created by the intermixing of fresh and salt water along the coasts; and the effects of marine geologic and hydrologic conditions in the complex defense effort are among the problems creating new and urgent needs for information on the geology and hydrology of marine areas.

### WATER RESOURCES ACTIVITIES

The need for information on the Nation's water resources is a matter of great urgency. We need the maximum possible amount of data on water resources to provide for effective development and utilization of available supplies. In this connection we recently conducted a 2-day conference with representatives of more than 20 Federal agencies that depend largely on the Survey for streamflow, ground water, and water-quality information. This conference, in a sense, was another phase in the review of our long-range plan in which these agencies participated as reviewers of the plan. It enabled us to hear agencies express their basic water-data needs on a national scale and under conditions of general discussion of mutual problems. The conference also made clear the extent to which these agencies, having responsibilities in the field of water, need the type of basic data that the Survey has traditionally supplied.

The program increase requested is $1,802,000 of which $502,000 is for cooperative investigations with States and municipalities.

One activity to which additional effort will be devoted will be on problems involving ground water. More effort will also be devoted to the mapping of the occurrence of saline water. Information on the depth to saline aquifers, their salinity, and areal extent is being developed as research continues through the Office of Saline Water on methods of saline water conversion.

I made reference to cooperation with agencies of State and municipal governments in water resource activities. Costs of such activities are shared equally and have the obvious advantage of insuring the programs thus financed represent joint interests of these levels of government.

CONSERVATION OF LANDS AND MINERALS

Under conservation of lands and minerals the Geological Survey will supervise the collection of an income of $197 million from oil, gas, and mineral royalties in connection with the supervision of development operations on Government and Indian lands. The requested program increase of $100,000 provides for an increase in these supervisory activities which cost about 1½ percent of the total income. During the last 15 years, the cost of this supervision per dollar collected has been cut in half.

The continuing increased rate of oil production and prospecting activities in Alaska and on the Outer Continental Shelf in the Gulf of Mexico and off the west coast accounts for most of the requested program increase. We have introduced electronic data processing for royalty accounting which will expedite the royalty computation and by the close of fiscal year 1965 it is expected that the transition to automatic data processing will be about 80 percent complete. Increases are also required for classification of lands in connection with the Nation's mineral and water power inventory and to handle the increasing number of reports on the mineral and water power values of lands subject to disposal.

LABORATORY FACILITIES

The special-purpose Nuclear Research Laboratory, which we need in Denver near our present offices, will enable us to develop new methods for everyday application in many fields. We plan to work on problems that will apply to mineral deposit studies and marine geology, to analysis of impurities found in water in only minute quantities, to the studies of sewage pollution, detergents, and industrial wastes, and to safe disposal of radioactive wastes.

The Nuclear Research Laboratory will, of course, help to relieve some of the acute space problems that have plagued the Survey in recent years and will provide much safer working conditions for the men and women already working with radioactive materials in present laboratories. Specialized talent has been engaged to design the building and tentative plans for the building have been completed. The plans have been scaled down to the barest minimum to get us the most building for the least money.

The site studies for the long-sought Washington building, which were made possible by the committee in last year's bill are currently underway; we hope it will be possible to begin detailed planning in the near future.

SURVEYS, INVESTIGATIONS, AND RESEARCH

Mr. NOLAN. I am sure the committee is familiar with the objectives of the Geological Survey to provide data on the mineral, water, and land resources that will help this country maintain its standards of living and economic growth. And as you know, the results of our studies on the occurrence of mineral and water resources and of our topographic mapping are used in many practical ways by other agencies of the Government, industry, and the general public.

Recently we have given a great deal of attention to the development of plans that would spell out program objectives as completely as possible, and also present a schedule for accomplishing these objectives in an orderly manner consistent with effective utilization of manpower and facilities. With the helpful comments and criti-

cisms of many interested persons in Federal, State, and local government, universities and industry, we have arrived at a long-range plan that we hope will be of interest to you in evaluating our funding requests.

LONG-RANGE PLAN

The printed document has been delivered only recently.

We believe that support for these programs is widespread and genuine, and we hope that in subsequent years we will be able to achieve the schedule that has been developed.

As I have observed in another place, there appears to be a direct relationship between the economic health of the community, as measured by such indexes as the gross national product, and the increase in knowledge of the nature and extent of the resources that are basic to the national economy. The Survey's programs provide such knowledge and thus are essential elements in our national growth.

TOPOGRAPHIC MAPPING

In regard to our topographic mapping request, the requests for topographic mapping far exceed our mapping program each year. Priority requests for topographic mapping are submitted annually by Federal map-using agencies under procedures established by the Bureau of the Budget and by State sources, including officially established State mapping-advisory committees. These requests are evaluated and are the basis for the selection of areas each year for new mapping and revision.

The chart that is on the easel shows in pink the first and second priority requests, for mapping needed within 4 years, that we have received for this present year. From those pink areas we select the areas that will be put on the program for the coming year.

REMAPPING IN GREATER DETAIL

Chairman HAYDEN. Many of these areas have been topographically mapped in years gone by, but you want to bring it out in more detail, so you do it over again, is that it?

Mr. NOLAN. Actually, almost all of the pink areas shown have been mapped only on the 4-mile-to-the-inch scale, the reconnaissance scale, and the requests now are mainly for 2,000-feet-to-the-inch mapping. The area shown in gray represents the areas that are now covered by standard mapping. The white areas are those for which the requests are of third priority.

Chairman HAYDEN. Percentagewise, how much does that amount to in the United States?

Mr. NOLAN. The gray area represents about 66 percent of the country, for which mapping has been completed, and about another 4 percent in which mapping is in progress. So we are now very close to 70 percent completion of the country on standard scales.

Chairman HAYDEN. At the rate you have been going how long will it take to finish the United States in standard?

Mr. NOLAN. We are doing about 3 percent a year, so that with 30 percent remaining it would be, theoretically, another 10 years before once-over coverage is completed. However, I would like to submit a further statement on this.

(The statement referred to follows:)

TOPOGRAPHIC MAPS

We are now producing standard topographic quadrangle maps at a rate of 3 percent of the country's area each year, about 110,000 square miles. About a fourth of this, however, are resurveys of some of the older inch-per-mile maps, to replace them with the more detailed and modern 1:24,000-scale maps. These are in areas where there are very high priority requirements because of needs in connection with a variety of problems such as development of water resources, location studies for new major highways, mineral resources investigations, and national defense matters. In 1965 more than half of the resurvey work will be done on cooperative and specially financed projects. Thus, although only 30 percent of the country does not now have topographic quadrangle coverage at the scale of either inch-per-mile or 1:24,000, it may take somewhat more than 10 years to complete this coverage.

Mr. NOLAN. In the meantime, of course, we are getting more involved in the revision of mapping; this is becoming an increasingly important part of the requests from other agencies.

Chairman HAYDEN. Communities will grow and conditions will change, of course, as you know.

You may proceed.

NATIONAL ATLAS OF THE UNITED STATES

Mr. NOLAN. For topographic mapping, the estimate of $22,301,000 provides for a program increase of $346,000 for resumption of work on the National Atlas of the United States, the project that began in 1962, but which was deferred during the past year. The chart, which is a very generalized one, shows the large number of agencies, both Government and non-Government, that are to contribute material for use in the Atlas. We also show in a very general way the broad subject areas that will be included.

During the past year, I might interject, we have had a number of communications from universities, and from some of the commercial map publishers expressing the hope that we will be able to resume work on the Atlas during the coming year. And I sincerely hope that we will.

Senator BIBLE. May I ask a question at that point, Mr. Nolan?

LENGTH OF TIME TO COMPLETE ATLAS

What percentage of the National Atlas is completed as of now? How long will it take to finish it?

Mr. NOLAN. I think we will require 2 additional years plus the coming year, if the appropriation is made. We have had only about 1 year's functioning so far, and in that time much of the effort necessarily was devoted to the development of plans for the Atlas and preparation of new base maps on which the Atlas information would be compiled. We will have much more assistance from here on, although in the past we have received assistance from a number of the professional groups around the country, the historical societies, the political scientists, other learned societies, as well as the several Government agencies involved.

Senator BIBLE. How much will it require to complete the job roughly? You say it is a 3-year job.

Mr. NOLAN. It will be roughly $700,000 or $800,000, excluding the $346,000 we are proposing this year.

Senator BIBLE. So with something in the neighborhood of a million dollars you could complete the job?

Mr. NOLAN. I believe so, sir.

PRIVATE INDUSTRY AND THE ATLAS

Senator BIBLE. Is there anyone in the private field, the scientific field, or the commercial field that is equipped to produce this same National Atlas of the United States of America as the Federal Government is? We are asked this occasionally, and I don't know the answer.

Mr. NOLAN. This came up last year, and as a result we made inquiries of a number of the commercial firms, both textbooks and atlas-producing groups. They had previously, I might add, been represented on a National Research Council committee that recommended that the Atlas be assigned to the Survey. Since then we have had letters from Rand McNally—a very strong letter from Andrew McNally III, who is president of that firm.

CORRESPONDENCE FROM RAND M'NALLY CO. AND M'GRAW-HILL

Senator BIBLE. The Rand McNally Co.?

Mr. NOLAN. The Rand McNally Co., the well-known map producer.

From the General Drafting Co., which I believe produces many of the automobile road maps.

And most recently, I have had a letter from McGraw-Hill, who is perhaps one of the largest of the textbook publishers.

All of them have expressed the belief that it would be very desirable for the Atlas project to be done by the Survey as the agency in Government that is able to call on not only the other Federal agencies but the learned societies and the industrial groups that would be involved in making contributions to the project.

Senator BIBLE. In other words, there is no one in private industry that is able to produce and wants to produce the National Atlas, as nearly as you know?

Mr. NOLAN. As near as I know. Certainly the requests and responses that we received seem to me to indicate very clearly that there is general agreement that it requires an agency like the Geological Survey to accomplish this job.

Senator BIBLE. I don't think I quarrel with your conclusion.

When the National Atlas is completed, who will actually produce it? Will it be a Government operation?

Mr. NOLAN. The plan is to do the printing in the same map-reproduction plant that we print our topographic maps. This is within the Survey. The distribution, I suspect, will be achieved in the same way that our topographic and other maps are now being distributed: in part through direct sales, but in large part through the sales by agents throughout the country.

Senator BIBLE. How big an atlas will this be pagewise if you could make an estimate?

PLAN FOR SIZE AND CONTENTS OF THE ATLAS

Mr. NOLAN. My recollection is about 100 sheets—I have the details of it here which I would be glad to supply to you.

Senator BIBLE. Supply it for the record.

(The information referred to follows:)

The basic plan for the National Atlas of the United States, developed in fiscal year 1963, provides for printing on approximately 100 sheets, size 19 by 28 inches which will fold into about 400 pages size 19 by 14 inches. As indicated by the draft table of contents (attached below), there will be about 10 pages of preliminary material, 352 pages of special subject maps, and an extensive index of place names.

DRAFT TABLE OF CONTENTS—REVISED, MAY 1963


| | Page |
|---|---|
| Title page | I |
| Imprint | II |
| Dedication | III |
| Staff and contributors | IV |
| Foreword | V |
| Contents | VI |
| Introduction | IX |
| Legend (multilingual) | X |
| **UNITED STATES: GENERAL REFERENCE MAPS** | |
| The 50 States | 1 |
| United States: Political-physical | 2–3 |
| Tables of data | 4 |
| Sectional maps at 1:2,500,000 | 5–27 |
| Pacific dependencies | 28 |
| Caribbean dependencies | 29 |
| Urban communities: Western | 30 |
| Urban communities: Midwestern | 31 |
| Urban communities: Eastern | 32 |
| **UNITED STATES: SPECIAL SUBJECT MAPS** | |
| Physical: | |
| Introduction to physical section | 33 |
| Shaded relief | 34–35 |
| Physical regions (Powell-Lobeck) | 36 |
| Physical regions (Fenneman-Hammond) | 37 |
| Surface landforms | 38–39 |
| Text | 40 |
| Seismology | 41 |
| Tectonic features and surface rocks | 42–43 |
| Text | 44 |
| Geologic history of United States | 45 |
| Geology | 46–47 |
| Glacial geology | 48 |
| Karst areas and caves | 49 |
| Coastal morphology | 50–51 |
| Mohole project | 52 |
| Soil regions | 53 |
| Soil types | 54–55 |
| Text | 56 |
| Text on water resources | 57 |
| Average annual runoff | 58–59 |
| Floods and droughts | 60 |
| Ground water (regions and structures) | 61 |
| Chemical content (composition) | 62–63 |
| Volume of load in solution (concentration) | 64 |
| Sedimentation | 65 |
| Water uses | 66–67 |
| Pollution | 68 |
| Text on climatic maps | 69 |
| Precipitation (annual and monthly means) | 70–71 |
| Precipitation: frequency and intensity | 72 |
| Precipitation (gallons per square mile and per capita) | 73 |
| Evaporation (annual and monthly means) | 74–75 |
| Thunderstorms (days/year) | 76 |
| Snowfall (amounts) | 77 |
| Relative humidity (annual and monthly) | 78–79 |

| Physical—Continued | Page |
|---|---|
| Snowfall (duration of cover) | 80 |
| Solar radiation received | 81 |
| Temperatures (annual and monthly means) | 82–83 |
| Freeze dates (spring and fall means) | 84 |
| Temperatures: monthly minimums (January–June) | 85 |
| Degree days below 65° F. (annual and monthly) | 86–87 |
| Temperatures: monthly minimums (July–December) | 88 |
| Temperatures: monthly maximums (January–June) | 89 |
| Degree days above 70° F. (annual and monthly) | 90–91 |
| Temperatures: monthly maximums (July–December) | 92 |
| Sunshine and cloud cover | 93 |
| Wind directions (seasons) | 94–95 |
| Weather statistics (selected stations) | 96 |
| Native animals | 97 |
| Natural vegetation | 98–99 |
| Native birds | 100 |
| Historical: | |
| Introduction to historical section | 101 |
| Archeological sites | 102–103 |
| Indian migrations | 104 |
| Discovery of North America | 105 |
| Routes of explorations | 106–107 |
| Routes of migration and settlement | 108 |
| Canals and post roads | 109 |
| Indian tribes and cultures | 110–111 |
| Missions, forts, fur trading posts, and mines | 112 |
| Cattle and transportation trails | 113 |
| Territorial growth | 114–115 |
| Land division (survey) systems | 116 |
| Land grants (railroad and military) | 117 |
| Battlefields | 118–119 |
| Scientific and cultural expeditions from United States | 120 |
| Economic: | |
| Introduction to economic section | 121 |
| Land use | 122–123 |
| Percent of land in farms | 124 |
| Increase and decrease in farming, 1954–64 | 125 |
| Generalized types of farming | 126–127 |
| Number of farms and distribution by size | 128 |
| Farm value and value of farm products sold | 129 |
| Economic classes of farms (nine) | 130–131 |
| Farm facilities (running water, electricity, telephone) | 132 |
| Farm power: tractors, horses, mules | 133 |
| Farm tenure and tenancy types | 134–135 |
| Crop subsidy payments | 136 |
| Croplands | 137 |
| Vegetables | 138–139 |
| Sugar (cane and beet) | 140 |
| Cotton | 141 |
| Cereals | 142–143 |
| Oil sources (flax, peanuts, soybeans) | 144 |
| Vineyards and nut crops | 145 |
| Orchards | 146–147 |
| Potatoes and tobacco | 148 |
| Corn and sorghums | 149 |
| Dairy products | 150–151 |
| Beef | 152 |
| Hogs, sheep, and poultry | 153 |
| Irrigated and drained lands | 154–155 |
| Grazing lands | 156 |
| Woodlands | 157 |
| Campgrounds | 158–159 |
| Fish hatcheries | 160 |
| Game reserves and wilderness areas | 161 |
| National and State parks, monuments, forests | 162–163 |

Economic—Continued Page
Text 164
Text: Natural resources 165
Mining and mineral activities (value of output) 166–167
Coal 168
Iron, magnesite, and mercury 169
Antimony, asbestos, bismuth, borates, chromite, vanadium 170–171
Copper, lead, and zinc 172
Radioactive minerals 173
Petroleum and natural gas 174–175
Text 176
Waterpower 177
Iron and steel industries 178–179
Machine tools 180
Aircraft industry 181
Automotive industry 182–183
Shipbuilding and railroad equipment 184
Hardware 185
Fabricated metal products 186–187
Glass products 188
Brickmaking 189
Stone, cement, and pottery 190–191
Scientific, optical, and photographic equipment 192
Chemical industries 193
Electrical industries 194–195
Fibers, plastics, and rubbers 196
Sawmills 197
Wood products 198–199
Furniture 200
Pulp and paper 201
Printing and publishing 202–203
Map publishers (commercial and official) 204
Apparel 205
Textiles 206–207
Leather products 208
Food products (meat and dairy) 209
Food products (frozen, canned, and baked) 210–211
Food products (beverages) 212
Retail and service trades 213
Employment in manufacturing 214–215
Wholesale trade 216
Annual earnings per industrial employee 217
Value added in manufacturing (by counties) 218–219
Percent of occupied persons engaged in manufacturing 220
Capital expenditures for industry 221
Labor resources in the United States 222–223
Federal contractors 224
Income and savings 225
Taxation 226–227
Use of tax money 228
Road distances (and air distances) 229
Roads (National and State) 230–231
Turnpikes and toll roads 232
Truck traffic 233
Railroads 234–235
Rail traffic 236
Airports 237
Air routes 238–239
Telecommunications 240
Bus routes 241
Navigable waterways (including canals) 242–243
Ports 244
Social and cultural conditions:
Census regions and geographic divisions of United States 245
Population distribution (urban and rural) 246–247
Population density (by counties) 248

| Social and cultural conditions—Continued | Page |
|---|---|
| Population changes by decades, 1790–1870 | 249 |
| Population changes by decades, 1880–1950 | 250–251 |
| Migration of U.S. population centers | 252 |
| Standard metropolitan areas | 253 |
| Urban-rural population change | 254–255 |
| Religions | 256 |
| Age and sex ratios | 257 |
| Labor force and occupations | 258–259 |
| Fertility | 260 |
| Ethnic groups | 261 |
| Educational achievements | 262–263 |
| Foreign origins of populace | 264 |
| Research libraries | 265 |
| Educational facilities and centers | 266–267 |
| Text | 268 |
| Museums and cultural centers | 269 |
| Medical geography (diseases) | 270–271 |
| Medical research centers | 272 |
| Housing (age) | 273 |
| Housing (condition and value) | 274–275 |
| Housing (increase 1950–60) | 276 |
| Election results: 1860–88 | 277 |
| Election results: 1892–1936 | 278–279 |
| Election results: 1940–60 | 280 |
| Administrative subdivisions: | |
| Time zones | 281 |
| Counties | 282–283 |
| Judicial districts | 284 |
| Postal rate zones | 285 |
| Congressional districts | 286–287 |
| Freight rate zones | 288 |
| Federal Reserve districts | 289 |
| Federal home loan bank districts | 290 |
| Securities and Exchange Commission zones | 291 |
| Farm Credit Administration zones | 292 |
| Federal Housing Administration districts | 293 |
| Civil defense zones | 294–295 |
| Military districts (Army, Navy, Air Force) | 296 |
| Veterans' Administration district offices | 297 |
| Redevelopment areas | 298–299 |
| Forest and flood control districts | 300 |
| Indexes of coverage: | |
| Topographic series (7½, 15, and 30 minutes) | 301–304 |
| AMS–USGS 1:250,000 | 305–308 |
| Special series (TVA, lake survey, Mississippi R, etc.) | 309–312 |
| Geological maps | 313–316 |
| Soil conservation series | 317–320 |
| Aeronautical charts | 321–324 |
| Hydrographic charts | 325–328 |
| 1:1,000,000 series (IMW, etc.) | 329–332 |
| Air photos | 333–336 |

WORLD MAPS

| | |
|---|---|
| World around the United States | 337 |
| World: political-physical | 338–339 |
| Polar areas | 340 |
| Foreign investments | 341 |
| Imports-exports | 342–343 |
| Foreign airline programs | 344 |
| Foreign student exchanges | 345 |
| Commodity dependencies of the United States | 346–347 |
| Immigration | 348 |
| Defense organizations | 349 |
| Foreign Service posts | 350–351 |
| Peace Corps units | 352 |
| Index | 353–400 |

SELLING PRICE OF ATLAS

Senator BIBLE. How much would it sell for?

Mr. NOLAN. Our estimate is that in order to recover the cost of production it would be about $50.

Senator BIBLE. Who would be able to buy it at that cost?

Mr. NOLAN. With the approval of the Budget Bureau, we circulated a questionnaire among certain groups of about 8,000 potential buyers—these are mostly industrial and business groups, libraries, educational institutions, commercial publishers and Government agencies—and at that time from the relatively large response we arrived at an estimate which indicated that a minimum of 15,000 or more volumes would be and could be sold.

The proposed price of $50 was arrived at in the belief that the initial printing cost could be met, but if not that there would be further opportunities to do so through the sales of successive reprints and revisions. In other words, there would be a continuing demand that would meet the cost of production. Furthermore, we could expect to net a considerable return from the sale of the separate map sheets when they are first printed, and, in many cases, when they are later periodically revised.

FREE DISTRIBUTION OF ATLAS

Senator BIBLE. I am probably unduly anticipatory, but when the National Atlas is ready for distribution, would one or more copies be made available to the State governments? What if the Governor of my State wrote and said, "I would like to have a National Atlas," should I write back and say, "Send $50 and you will get it." Is that what I write to him?

Mr. NOLAN. There would, of course, be a certain amount of free distribution such as to depository libraries to which all of our publications go. And my expectation would be that copies of the Atlas would be available to the various State governments.

Senator BIBLE. This would go to the depository library set up by law for each of the States?

Mr. NOLAN. They are not individually set up by law, but there is a list of depository libraries; yes.

Senator BIBLE. Thank you, Dr. Nolan.

Senator MCGEE. With the number of Governors that are interested in States rights and no Federal aid, I expect you would get $50 more quickly than you might believe otherwise. They are afraid of Federal influence, you know.

WIDE USE OF THE ATLAS

Mr. NOLAN. My expectation is that this will be very widely used and be very helpful to all of the industrial and university groups.

Senator BIBLE. I am sure it will.

It is contemplated that this makes the U.S. Government whole for the cost of production and distribution?

Mr. NOLAN. That is our expectation, sir.

Senator BIBLE. Thank you, Doctor.

REVISIONS OF THE ATLAS

Senator YOUNG. How often would you have revisions, if any?

Mr. NOLAN. The plan so far is that revisions will be handled in the same manner as for a looseleaf atlas, although the users' preference is for solid binding and that is less costly to produce. Under this procedure there would not be a complete revision at particular times, but as individual sheets in the Atlas become obsolete or out of date, these would be brought up to date and reprinted without going through the mechanism of a complete reprinting of the whole Atlas, and these individual sheets would be available for sale. Thus professional users of the Atlas could have the most up-to-date data at all times, and at infrequent periods the entire volume could be reprinted.

PUBLISHING THE ATLAS BY THE GOVERNMENT

Senator YOUNG. Do you think the publishing of an atlas always has to be a government business—private enterprise couldn't handle this?

Mr. NOLAN. Well, we have talked to a good many of the publishers about this, Senator Young. The experience of other governments certainly has been that it is a government operation, because it represents a large initial cost for research and requires the capability of utilizing information that is so widely scattered among both government agencies and learned societies. Thus it would seem to be next to impossible for a private company to achieve the same degree of comprehensive coverage at any cost, or at a cost that would permit them to recover their initial investment. I have the impression from the discussions that we have had with companies like Rand McNally, General Drafting, McGraw-Hill, and the like, that they would look forward to the production of this Federal atlas as something which they could then use as the basis for preparation of more popular atlases that would sell through their normal channels.

Most of them I think would regard this as a source book rather than as a competitive atlas.

SUPPLYING INFORMATION TO PRIVATE INDUSTRY

Senator YOUNG. Are you supplying the information to private institutions now for a price, or fee?

Mr. NOLAN. You mean the sort of information that would go into the Atlas?

Senator YOUNG. Yes.

Mr. NOLAN. Of course, much of that we don't have now and it would not originate with the Geological Survey. The main effort has been and will be for a time to acquire the information from numerous sources and put it in form suitable for the Atlas.

Senator YOUNG. Are you supplying any information now to private industries?

Mr. NOLAN. Yes, sir; through our topographic maps, geologic maps, and other publications.

INCOME FROM SUPPLYING INFORMATION

Senator YOUNG. What is the income from that?

Mr. NOLAN. The sales from topographic maps, that now goes into the Treasury, is something on the order of three-quarters of a million a year. These are the regular maps that are produced by the Survey, and have been for many years. They sell at 30 cents apiece. The book publications are sold through the Superintendent of Documents at the Government Printing Office.

Senator YOUNG. Thank you.

LESS EXPENSIVE ATLAS

Senator BARTLETT. Doctor, may I ask, I suppose a long view has been taken also as to what would be involved in a kind of national atlas that would still have a broader base of interest than what you are envisaging here would involve in terms of additional studies and in terms of a larger compendium of information available in your agency. And I assume that you have ruled that out of the realm of either need or feasibility.

Mr. NOLAN. No. I think the Atlas, as we have scheduled it, will be composed of information that must be obtained outside of our agency. It will include maps prepared by other Federal agencies, Agriculture, Weather Bureau——

Senator BARTLETT. That is why I wondered whether there might not be a need for a broader clientele for a $5 atlas or a $10 atlas that would involve——

Mr. NOLAN. My guess is that the Atlas that we prepare will provide a broad base for the less expensive atlases, and my suspicion is that companies like Rand McNally anticipate that the Federal or United States Atlas that we will prepare will be extremely useful to them in preparing the more popular type of atlas. We have modeled ourselves to some extent on the atlas that the Canadians produced about 10 years ago, which is a very comprehensive one, and which has been acclaimed in Canada as a compendium of knowledge that can be used very widely.

Senator BIBLE. May I ask one further question at that point?

U.S. GOVERNMENT PRODUCTION OF PREVIOUS ATLAS

Has the U.S. Government ever produced a similar national atlas in the past?

Mr. NOLAN. No, sir.

Senator BIBLE. This is the first time it has been done?

Mr. NOLAN. In fact, we are one of the few countries, as compared with Europe and Canada, that have not produced a national atlas. And it was the absence of such an atlas that led some 10 or 15 years ago to the establishment of a committee by the National Academy of Sciences and National Research Council to look into the production of a national atlas. For a number of years this Committee endeavored to devise a technique or a system whereby the necessary information could be acquired through the Research Council-Academy Committee and released as a series of separate sheets.

This failed to jell. It was not a successful effort. And after several years the Committee, through the President of the Academy, addressed

a letter to the then Secretary of the Interior requesting that the Survey take over the responsibility of preparing it, in order to give single agency guidance.

Senator BIBLE. Thank you, Doctor.

### INCREASED PAY COSTS

Chairman HAYDEN. Throughout the budget you show amounts required for increased pay costs in connection with your various activities. Please indicate to the committee the total amount of pay costs which you would expect in the fiscal year 1965, indicating how much of these you propose to absorb?

Mr. NOLAN. The pay costs, as I remember, are shown on page GS–10, and amount to $990,000——

Chairman HAYDEN. Is there any further statement you want to make?

Mr. NOLAN. I have a few additional observations I might make.

### NEW DEVELOPMENTS IN TOPOGRAPHIC MAPPING

I would like to mention one of the new developments in topographic mapping that we feel is going to be of considerable assistance. It was developed by the Survey, and it is called the airborne control survey system. In it, as the chart shows, a helicopter hovers at a measured distance above the ground points for which positions and elevations are desired with accuracies sufficient for our topographic mapping. As the helicopter hovers, instruments at established ground control points, a few miles distant, can be aimed at it for simultaneous observation.

Through the use of the observed distances which are measured by a new device called the tellurometer we can achieve sufficient accuracy for new points which are almost inaccessible by other means or which can be reached only at very high expense. Someday I hope that I will be able to show the committee a moving picture which has recently been completed by the Survey and by the Hiller Helicopter Co., which illustrates the use of this equipment and which we anticipate is going to decrease significantly the cost of mapping operations in difficult terrain, as well as speed them up.

### UPPER MANTLE STUDIES

In regard to our geologic investigations, the estimates provide $17,510,000, which includes a program increase of $985,000. This particular increase is requested for geologic investigations to provide support for an accelerated program of participation in the upper mantle project.

This is a coordinated national program to gain knowledge of that portion of the earth just below the surface. It will have direct application in the understanding of earthquakes and volcanic eruptions, and, hopefully, the eventual ability to predict them; to improved long-distance communication through the mantle rather than through the air; to the VELA project for the detection of underground nuclear explosions; to oceanography; and, of course, to systematic and sound research for new minerals and fuels.

We have tried to show graphically on the chart some of the types of work that would be done. Three directions of effort I think are going

to result in immediate benefits. One, through better knowledge of the upper mantle, we anticipate that we will have a much better understanding of the occurrence, frequency, and eventually, we hope, the timing of eruptions from the volcanic areas in both the Hawaiian Islands and in the Pacific coastal area.

Two, what we call heat flow, is really an intensive study of geothermal energy. This is becoming a topic of very great interest and potential use, especially in our Western States. The projects that are planned under the upper mantle project will help to determine more accurately where potential areas of geothermal energy may be located and developed.

### Promise and Nature of Geothermal Area Minerals

Three, new sources of minerals and fuels are being better understood by current exploration. One area that is currently being developed for geothermal energy in the Salton Sea is producing minerals at the same time. This potential for mineral production, that was completely unexpected, is now exciting a great deal of interest. I attended the meeting of the American Institute of Mining Engineers in New York last week, and one whole session was devoted to a discussion of the promise and nature of the minerals that may be obtained from this geothermal area in the Salton Sea. In the course of a month this one well deposited 2½ tons of sediment that contained 20 percent of copper and 2 or 3 percent of silver. In addition, it yielded a brine that contains 2½ percent of potash.

If developments of this sort continue, the country may have not only a source of power but a very real addition to the mineral potential.

Chairman Hayden. At what depth?

### Oil Companies' Interest in Salton Sea Area

Mr. Nolan. These wells—there are three down now—have a depth ranging from about 5,000 to 7,000 feet. They have bottom hole temperatures of more than 300° centigrade, that is over 500° Fahrenheit. These mineral-bearing fluids are very hot, and they present many technical problems in recovery. But two major oil companies have now become interested in the Salton Sea area, and are doing a great deal of work there.

Chairman Hayden. How much would it cost the Geological Survey during the current fiscal year?

Mr. Nolan. For the entire upper mantle project we propose to expend $985,000. This is the amount of increase requested.

### Potentials for Geothermal Energy and Mineral Wealth

Senator Bible. Might I, Mr. Chairman, commend this particular project to the committee's attention. I think this has untold possibilities not only for geothermal energy, but it also is a potential source of very, very rich mineral wealth. And I think this is a great program, particularly for public domain States. My State, so I am advised, has one of the greatest potentials for geothermal energy of any of the public domain States.

Mr. Nolan. Nevada is one of the States that is currently under investigation, in fact I wrote a paper about the Beowawe geyser area back in 1932.

Senator BIBLE. We are tapping new horizons, and I think this is one that deserves increased attention and emphasis, Mr. Chairman. I think there are intriguing possibilities.

Chairman HAYDEN. You are right.

### MARINE GEOLOGY AND HYDROLOGY

Mr. NOLAN. Our marine geology program is based on the Survey's competence and capacity to supplement the efforts of other agencies engaged in related problems. The estimate of $998,000 provides for a program increase of $500,000. The request for the Geological Survey is only a small part of the cost of a coordinated program involving many Federal agencies, and it is agreed that a study of marine geology and hydrology is an important part of the whole program.

The shelf areas and adjacent slopes are submerged portions of the continent, and knowledge of the geology of these areas, as well as of the adjoining land areas, is necessary to the search for and the development of their potential mineral resources.

I have shown on the chart the areas in which we are currently working on the east coast, and the areas that we propose to begin working on next year.

Chairman HAYDEN. At what cost?

Mr. NOLAN. An increase of $500,000 is requested over and above the $498,000 that we have this year.

### WATER RESOURCES INVESTIGATIONS

In regard to our water resources work, the need for information on the Nation's water resources is a matter of great urgency. We need the maximum amount of data on water resources to provide for effective development and utilization of the available supply. The program increase requested is $1,802,000, of which $502,000 is for cooperative investigations with States and municipalities.

### CONFERENCE ON UTILIZATION OF WATER INFORMATION

About a month ago we conducted a 2-day conference with representatives of all the other Federal agencies concerned with the utilization of water information. And since then we have started a series of meetings with State, municipal, and other groups to determine the need they have for increased information.

Chairman HAYDEN. Will the $10,800,000 which you request for the Federal-State program of water resources investigations provide you funds to meet the matching requests of all State proposals?

Mr. NOLAN. We anticipate that the $502,000 increase for cooperative investigations will meet the needs for proposed surface and ground water investigations, but it will not meet the requests, which amount to about $200,000, for quality-of-water work.

### QUALITY OF WATER INVESTIGATION

Chairman HAYDEN. You have to have $200,000 more?

Mr. NOLAN. We would need the additional sum to meet the quality of water offerings.

Senator BIBLE. Would you develop that just a little—with the Chairman's permission—would you develop that quality of water work just a little bit more. Exactly what do you mean by that, and where is it conducted? Is this the salt content, for example, of the flow in the Colorado River after it gets to its lower reaches? Is that the type of thing you are talking about?

Mr. NOLAN. Our quality of water work involves both salt content and the sediment load in surface streams. It also includes work on the chemical quality of groundwater. It is essentially the analytical determination of both the salt content and the sediment content—the amount of silt and sand that is carried by the streams.

### RESPONSIBILITY FOR COLORADO RIVER CONTENT INVESTIGATIONS

Senator BIBLE. Who is responsible on the Colorado River, for example, for the determination both of content——

Mr. NOLAN. We are.

Senator BIBLE. You are responsible rather than the Bureau of Reclamation?

Mr. NOLAN. Yes, sir. We have stations on the Colorado—in fact, as I recall, the Colorado at Grand Canyon was the station at which some of the earliest sediment load determinations were made. And from that work, which was done, as I recall, almost 40 years ago, the initial estimates of the sediment load that would be carried into Boulder Dam were made. Since then we have expanded the quality network. Actually the stations at which we make these determinations to a considerable extent are the same ones at which discharge measurements are made, or in the case of ground water, stations where the ground water levels are measured.

Senator BIBLE. When we ask the Bureau of Reclamation how many years it would take to fill up Lake Mead with sedimentation, then they go to you for the source?

Mr. NOLAN. They use our information; yes, sir.

Senator BIBLE. As well as the quality, whether it is salty water or clear and pure water?

Mr. NOLAN. Yes, sir. For many years we have made determinations, both for Reclamation and for the Corps of Engineers, as well as for other agencies, in part through transferred funds.

### COLORADO RIVER GAGING STATIONS

Chairman HAYDEN. Last year I received a letter from the executive director of the Upper Colorado River Commission urging appropriation of funds to rehabilitate the stream gaging stations and attendants' quarters at Lees Ferry and at Grand Canyon. The Secretary has advised me that $50,000 is included in your 1965 budget for this purpose, and that $50,000 more will be requested in fiscal year 1966 for the station at Lees Ferry on the Colorado River and on the Paria River, and at Grand Canyon.

What is the total amount required for this rehabilitation?

Mr. NOLAN. My recollection of that correspondence, sir, is that the total amount required will be $100,000, of which $50,000 is proposed for this year, and $50,000 for the following year.

Chairman HAYDEN. Which station do you propose to work on during present fiscal year, the coming fiscal year?

Mr. NOLAN. I will ask Mr. Hendricks to provide the information.

Mr. HENDRICKS. The question of which station will come first depends on the plans of the National Park Service. We are coordinating with them in the development of the Grand Canyon station. If they are ready with plans which they are drawing for the structures, and certain other work for the development of a pipeline as scheduled, then we will do Grand Canyon first in 1965 and Lees Ferry station in 1966.

This could be reversed, however, depending on the circumstances.

Chairman HAYDEN. Do you have a question?

LONG-RANGE PLAN

Senator BIBLE. The only question I was going to ask, Mr. Chairman—you opened up the field in asking Dr. Nolan the earlier questions and that would be: Are the sums included in your water investigations estimates sufficient to meet the annual needs of your long-range plan of water resources investigations? I understand that that is a 10-year plan. Now, are your annual needs being met?

Mr. NOLAN. As I mentioned at the beginning, sir, this is a long-range plan that the Survey has developed. It does contemplate increased support for both the data collection activity as well as the research activity. The increase that is proposed here represents a part of that, but not the full proposal.

Senator BIBLE. How many more years does your long-range plan have to go?

Mr. NOLAN. The long-range plan provided for a 10-year program of expansion.

Senator BIBLE. When did it start?

PLAN PROPOSED TO START THIS YEAR

Mr. NOLAN. We had hoped it would start this year.

Senator BIBLE. So, it hasn't even started?

Mr. NOLAN. No.

Senator BIBLE. We are projecting ourselves 10 years ahead?

Mr. NOLAN. Yes, sir.

ESTIMATED COST OF PLAN

Senator BIBLE. What is the overall total estimated cost?

Mr. NOLAN. For water or the whole——

Senator BIBLE. Everything envisaged in the long-range plan that you have?

Mr. NOLAN. I would like to supply that for the record.

Chairman HAYDEN. You may supply it for the record.

(The statement referred to follows:)

TEN-YEAR COST OF PLAN

To obtain the objectives of its long-range plan, the Geological Survey estimates that a program increase averaging approximately 5 percent each year for the 10-year program will be required. The proposed rate of increase reaches a maximum of 8 percent in the third year of the program and drops to 4 during the fifth year, then 3 percent during the last 2 years of this plan. In estimating the cost of the long-range plan we worked in terms of permanent man-years of employment in the belief that this is perhaps a more stable measure than dollars for long-range estimates. It is on the basis of the personnel required to carry out the work that

the above figures were calculated, giving the annual increases needed over the 10-year period in order to accomplish the proposed long-range programs.

WATER LOSSES BY PHREATOPHYTES

Senator BIBLE. I think it would be very helpful if at least the staff, Mr. Chairman, were supplied with copies of that. I would like to see one individually, and maybe the other Senators, it doesn't have to be done right now.

I think that would be very interesting.

Mr. NOLAN. We will be pleased to supply copies to the committee. A great deal of interest has been expressed in the plan by many individuals. The response has really been enthusiastic.

Chairman HAYDEN. What is the status of your investigations of water losses by phreatophytes which you are carrying on in Arizona at this time?

Mr. NOLAN. There are several areas in which we are working in Arizona on phreatophytes. The major one, as you know, is on the Gila River. I have a statement here which I would like to put in the record.

Chairman HAYDEN. I would be glad to have it in.

(The statement referred to follows:)

GILA RIVER PHREATOPHYTE PROJECT, SAN CARLOS INDIAN RESERVATION, ARIZ.

NATURE OF THE PROBLEM

The possibility of reducing water use by phreatophytes and recovering of the water for beneficial purposes has aroused wide interest. This study is to evaluate the reduction of water loss from a large flood plain that would result from removal of phreatophytes and substitution of a beneficial vegetation having a lower water use.

APPROACH

The water loss is being measured by evaluating a water budget for 16 miles of the flood plain of the Gila River within the San Carlos Indian Reservation, Ariz. Phreatophytes, consisting mainly of salt cedar and mesquite, here cover an area of 6,000 acres. The reach will be divided into three subreaches for comparative evaluation.

The water budget for undisturbed phreatophytes will be evaluated for the calendar years 1963 to 1966. In 1967 the phreatophytes will be removed and a suitable replacement vegetation will be established. From 1967 to 1970 the water budget will be evaluated for the replacement vegetation.

The water budget includes inflow and outflow from the Gila River, contributions from tributaries within the reach, precipitation on the flood plain, and change in storage of ground water and soil moisture. New techniques are being developed for making precise measurements of ground water movement and the change in storage of ground water and soil moisture. Maximum value from the data collected will be obtained by making rapid analyses and frequent adjustments to both the data collection and methods of computation. Where possible, punched tape records are secured so that all data will be collected or translated for computation by digital computers. Analog computers will be used in the analysis of the data.

The water loss computed by the budget method will be compared with observations of evaporation from San Carlos Reservoir and direct measurements of evapotranspiration at locations on the flood plain.

A study of the effect of phreatophyte removal on the quality of ground and surface water, and on erosion and sedimentation will be included in the project.

WORK PROGRESS

A major part of the effort thus far has been the installation of equipment and the collection of basic data. Four gaging stations on the Gila River and 63 stations on tributaries were installed. The establishment of 89 observation wells

and the installation of soil-moisture equipment is about completed. Access roads at right angles to the trend of the flood plain were cleared at each gaging station and at three intermediate points in each subreach. The rail gages were installed on the flood plain. Equipment for the computation of evaporation by the energy-budget method was installed on the San Carlos Reservoir. All gaging stations were placed in operation and preliminary discharge rating curves have been developed for the Gila River stations. Processing of discharge data was completed for the first few months of operation. Complete water-budget data is being collected.

Fieldwork for the preparation of a geologic map of the flood plain was completed. An inventory of all existing wells in the area tributary to the reach was made. A reconnaissance of the area including collection of water samples from selected wells and surface waters was made in preparation for a detailed chemical quality-of-water study. An intensive study was made for the calibration of neutron soil-moisture meters for the installations and soils of the project. Plans were developed for analysis of the data by digital computer.

Plot studies are being established by the Bureau of Indian Affairs and the San Carlos Apache Indian Tribe to determine methods of eliminating the phreatophytes and to test the feasibility of various species of beneficial vegetation.

FUTURE PLANS

The University of Arizona and the Bureau of Indian Affairs have urged the Geological Survey to extend the investigation to certain plots of special interest to them that are outside the current project area. We believe that such an extension would broaden the scope of the project and considerably increase the value of the results that we expect to obtain. To do this, however, will require a larger expenditure than the $900,000 initially estimated as the total cost of the project. Other factors have conspired to increase the project costs. They are (1) Federal salary increases; (2) unforeseen difficulties in putting down the necessary test wells; and (3) difficult stream-gaging conditions that have required more elaborate installations than originally anticipated. The table below reflects revised estimates of the annual costs of the program to its completion in fiscal year 1964:

*Estimated cost of program*

| Fiscal year: | *Estimated cost* |
|---|---|
| 1962 | $100,000 |
| 1963 | 160,000 |
| 1964 | 200,000 |
| 1965 | 200,000 |
| 1966 | 200,000 |
| 1967 | 150,000 |
| 1968 | 100,000 |
| 1969 | 100,000 |
| 1970 | 100,000 |
| 1971 | 30,000 |
| Total | 1,340,000 |

NOTE.—Estimates do not include the cost of removing the phreatophytes.

MEASURING CONDITIONS OF INFLOW AND OUTFLOW

Mr. NOLAN. I can summarize it by emphasizing that we are in the midst of the initial period of establishing existing conditions of inflow and outflow; at the end of 1966 we plan to start eliminating the phreatophytes in order to determine the savings that can be made.

In the course of preparing for this series of measurements we have installed not only gaging stations at a number of points on the river, but 63 stations on tributaries of the Gila as well. In addition, we have put down 89 observation wells and have installed soil moisture measuring equipment. The study will be a very thorough and comprehensive one.

RESULTS ON LOSSES ON LOWER COLORADO PROJECT

In the meantime, we have done some work on the losses from phreatophytes along the lower Colorado, as part of the lower Colorado project. As a result of small-scale work. This has already shown that—but perhaps I had better read this statement so that I can make sure that it is not poorly phrased:

Results from the evaporation-transpiration station near Yuma indicate that a moderate stand of arroweed uses about 5 feet of water per year with the water table about 4 feet below land surface. This is about two-thirds as much water as that used by a normal stand of salt cedar under the same conditions. Cattail used about 8 feet compared with 7.5 feet of evaporation from the surface of an open water tank set in a swamp of the same area, and 9.1 feet from the standard class A evaporation pan.

Evaporation from a bare soil surface with the water table at the same distance below ground surface was negligible, less than 2 inches a year.

We think this is the critical point, that in the absence of these phreatophytes there is essentially little or no evaporation—2 inches. With a stand of phreatophytes there is a loss of up to 8 feet of water a year.

This is a very graphic illustration of the water losses due to these plants.

WATER LOSSES BY EVAPORATION FROM RESERVOIRS

Senator BIBLE. May I interrupt and ask a question at that point? I don't want to be interrupting, except that it seems to me it properly comes in here. You have told about the losses from the phreatophytes in the studies that you are making. We, also, as you well know, have a great problem—and I know the Chairman is far more familiar with it than I am—from evaporation from the great reservoirs, I mean Lake Mead and Havasu and the lake back of Glen Canyon. And I have forgotten how many hundreds of thousands of acre-feet are supposed to evaporate and get up in the atmosphere and can never be recaptured.

Is this your responsibility to make those studies? What agency makes the studies, and are you making any progress, if you are not the agency?

JOINT STUDIES BY GEOLOGICAL SURVEY, BUREAU OF RECLAMATION, AND DEPARTMENT OF THE NAVY

Mr. NOLAN. We are not the only one. Actually the major studies that have been made on evaporation losses, both from Lake Mead and several other smaller lakes, have been done jointly by the Geological Survey and the Bureau of Reclamation with some very considerable assistance in instrumentation from the Navy Electronics Laboratory in San Diego. A very comprehensive study was made on Lake Mead about 10 or 15 years ago, and an even more detailed one on a smaller scale on one of the lakes near Oklahoma City. I would be very glad to furnish a summary statement.

Senator BIBLE. I would like to have that supplied for the record.

(The statement referred to follows:)

EVAPORATION RESEARCH

As greater demands are placed on our limited water supply, loss of water through evaporation becomes increasingly important. Evaporation is a large part of the water budget in most areas. The Geological Survey estimates that

an average of nearly 25 million acre-feet of water is lost annually in the 17 Western States. Reliable estimates of the annual evaporation loss for the other 33 States have not been made, but it is believed that they are large, also.

Until recent years the methods of measuring evaporation were highly unsatisfactory because of the near impossibility of measuring losses in natural water bodies directly. Evaporation research by the Geological Survey has been directed toward the development of sounder techniques and methods to replace the inaccurate methods of the past and to seeking the fundamental principles involved in the process of evaporation. About 15 years ago the Geological Survey conducted a study of the utility of selected western lakes and reservoirs for water-loss studies. As a result of this work Lake Hefner, near Oklahoma City, was selected as a site for detailed evaporation research. A number of other studies have been conducted since that time and several are underway at present.

MECHANICS AND MEASUREMENT OF EVAPORATION

In 1954 the Geological Survey published Professional Paper 269, Water-Loss Investigations: Lake Hefner Studies, Technical Report, prepared in collaboration with the Department of the Navy, Bureau of Reclamation, and Weather Bureau. These studies were an integrated cooperative effort by specialists in five fields of science (hydrology, geology, meteorology, oceanography, and physics) to attack the water-loss problem by a comprehensive study of old and new methods of determining evaporation. Using the water-budget method, which at Lake Hefner met the requirements for accuracy, as a control, previous studies of evaporation-pan coefficients were confirmed and refined, modern mass-transfer equations were tested and two found adequate for general use, and the energy-budget equation was found satisfactory under limited conditions. A simple empirical equation was developed from the water-budget data which proved satisfactory for computing daily evaporation at Lake Hefner using standard meteorological observations plus surface-water temperature of the lake. Development of these improved techniques was an essential prerequisite to further studies and determination of evaporation losses on large reservoirs in the Western States, notably Lake Mead.

During the period March 1952 to September 1953 the same agencies collaborated with the Geological Survey in a project to make use of the techniques for measuring evaporation developed in Professional Paper 269 to determine the evaporation loss from Lake Mead. In addition, further tests were made of mass-transfer equations, a quasi-empirical equation, evaporation-pan coefficients, and of equipment for measuring radiation. Techniques were developed for the continuing determination of monthly evaporation from the reservoir. Results of this project were published in Professional Paper 298, Water-Loss Investigations: Lake Mead Studies.

Professional Paper 272 reports, in several chapters, results of investigations of various aspects of evaporation as follows:

272A The effect of salinity on evaporation.
272B The effect of the addition of heat from a powerplant on the thermal structure and evaporation of Lake Colorado City, Tex.
272C Review of literature on evaporation suppression.
272D Evaporation from the 17 Western States.
272E A practical field technique for measuring reservoir vaporation utilizing mass-transfer theory.

Because of the great scattering in many publications of available knowledge of evaporation and transpiration, the Geological Survey compiled and published Water-Supply Paper 1539–R, Selected Bibliography on Evaporation and Transpiration. The references emphasize papers from the United States from the early 1880's into 1958.

The current research program is a continuation of efforts to improve understanding of the theory of evaporation, to further refine the techniques for its measurement, and to obtain broad aereal coverage of information on evaporation from large natural or manmade water bodies. Investigations are made toward adapting recent technological advances, such as the measurement of the attenuation of light by vapor in the air, to the direct measurement of evaporation. Newly developed instruments are being studied for applicability or adaptation to the requirements for increased quality and accuracy, or measurement of parameters.

In recognition of the need for broad national coverage of information on natural water losses, the Geological Survey began in 1961 a program to sample net evaporation losses in a variety of climatic environments. Using the improved energy-budget instruments and techniques developed from some of the research pre-

viously described, determinations are being made of the variations in evaporation rates from representative lakes and reservoirs widely scattered throughout the United States. Studies are currently underway at reservoirs in Arizona, California, Florida, Kansas, Louisiana, North Carolina, North Dakota, Oregon, and Texas. It is anticipated that this continuing program will eventually yield valuable evaporation information on most of the major reservoirs in the United States.

In the Federal-State cooperative program there are currently two evaporation studies. In cooperation with the city of San Diego, Calif., the Survey is making a determination of evaporation coefficients for reservoirs in San Diego County. In Louisiana a cooperative project for the department of public works is the determination of evaporation by the mass-transfer method for a pond evaporation station. Comprehensive areal appraisals of water resources may include evaporation studies, where evaporation is a significant factor. In Florida and Utah, for example, new areal investigations started as cooperative projects this year include measurement of the evaporation item in the water budget.

EVAPORATION SUPPRESSION

The Geological Survey has participated, in cooperation with other Federal and local agencies, in several investigations of evaporation control methods. The general purpose of these investigations has been to develop a practical, safe, and effective method of treating the water surface of a reservoir with a monomolecular chemical film to reduce losses of water by evaporation. The Geological Survey has taken part in both laboratory and field studies for approximately 10 years. Its specific role in these studies has been to evaluate the effectiveness of the various chemicals and techniques used.

Principal among these studies are several that have been conducted in Texas in cooperation with the Southwest Research Institute, Texas A. & M., and the State of Texas. Field tests between 1955 and 1958 on several small reservoirs indicated that the reduction in evaporation was somewhat less than 20 percent under the prevailing conditions and the application procedure used. Slightly greater reductions have been obtained on other studies on small stock tanks. However, the amount of retardant material needed per acre, and thus the relative cost, was much greater in case of the stock tanks.

During 1958 extensive tests were carried out on Lake Hefner by the Geological Survey, Bureau of Reclamation, Public Health Service, and the city of Oklahoma City. The Survey measured the evaporation losses and computed the savings due to the monofilm and the rise in water surface temperature caused by the monofilm.

Several major problems associated with this method of reducing water losses have not yet been fully solved; in particular, the effects and action of wind on the monofilm; the breakdown of the monofilm by biochemical oxidation; the long-range effects of monofilms on the limnology of a reservoir; toxicological aspects of chemicals used; and the fundamental principles involved in the mechanism of evaporation and its reduction by a monofilm.

PREVENTION OF EVAPORATION LOSSES

Senator BIBLE. The main thing I am interested in is this: As the result of these studies, has any effective solution been found to preventing these tremendous evaporation losses? I know that I have heard that you could pour some kind of compound or something on the water and that would lessen the evaporation, but has it ever actually worked out?

Mr. NOLAN. There has been and there is continuing a great deal of experiment and research on the use of these monomolecular films, as they are called. Acetyl alcohol has the ability to spread out as a very thin film, which prevents evaporation losses of the kind you have mentioned.

The difficulty—and I think this is where we are now, is the physical problem of maintaining that film unbroken at times when the surface of the water is disturbed by high winds or gusty winds. The Bureau of Reclamation is carrying on a great deal of research in that field now.

Senator BIBLE. That is a constant problem, as you very well know, on Lake Mead, using that as an example.

Mr. NOLAN. In this area I think most of the work is currently done by Reclamation rather than by us.

Senator BIBLE. I see.

Thank you, very much.

### GROUND WATER PROBLEMS

Mr. NOLAN. I did want to say, in the discussion of our ground water work, that the chart shows areas of current ground-water projects. The other chart shows the areas in which there are serious ground water problems facing us in the future. This is the result of a study that we made through our district offices. And then the chart below represents the areas in which we propose to extend our ground water work in an effort to meet some of the problems that can be foreseen.

Chairman HAYDEN. In looking at the map, a ground water problem is indicated near the ocean and the coast. I am curious about that.

Mr. NOLAN. That is perhaps not so much the result of inadequate supplies as in the contamination of existing supplies by the incursion or invasion of salt water from the ocean. These areas, in which there is a considerable amount of ground water available, tend to be heavily pumped. As a result of the heavy pumping, salty ground water is drawn into the aquifers from the ocean. And this requires a very considerable amount of study as to both the proper location of the wells, the volume of water, the rate of pumping, the rate of recharge, and things of this sort.

And this same problem, I might observe, is being attacked from another angle under the marine geology and hydrology program. We are making some progress in resolving the difficulties there as well.

I might add in regard to water that insofar as getting the basic data, the measurements of stream discharge——

Senator MCGEE. May we leave that map up there a minute?

Mr. NOLAN. Surely.

### GROUND WATER INVESTIGATIONS IN WYOMING

Senator MCGEE. I notice that the State of Wyoming is about half covered by your green designations on that map. I think it would be interesting, if you could supply it for the record, in a status report on your studies on those Wyoming projects.

Mr. NOLAN. I would be glad to.

(The information referred to follows:)

#### OBJECTIVE OF THE PROGRAM

The long-range objective of the Geological Survey's ground water program in Wyoming is to determine and describe the occurrence, availability, and quality of the ground water resources of the State. Much of the work is being done in cooperation with the State engineer, the city of Cheyenne, and with other Federal agencies.

The current program includes detailed ground water appraisals of three areas, reconnaissance studies of three structural basins, investigations of several small areas with present or potential water problems, two research projects concerned with hydrologic principles, and maintenance of a statewide basic data network. The following statements describe the principal segments of the program.

Investigations of the geology and ground water resources of Sheridan County and of northern and central Johnson County have been completed and reports

on the areas are nearing completion. A study of the ground water resources and geology of Laramie County will be started during fiscal year 1964.

Field work on a reconnaissance study of ground water in the Great Divide and Washakie basins and the Rock Springs uplift is scheduled to be completed in 1964.

During the past year, brief hydrologic investigations were made in the vicinities of Newcastle and Ten Sleep, and short reports on these areas were released to the open file.

Brief reports for the National Park Service on ground water conditions at Devils Tower National Monument and near Jackson Lake, Grand Teton National Park, are near completion. Investigations in Yellowstone National Park currently are underway at the east and northeast entrances, at Bridge Bay, and at Cave Falls. Three deep wells at recreational sites adjacent to Flaming Gorge Reservoir are being logged and tested.

Work on the Missouri River Basin program is continuing in cooperation with the Bureau of Reclamation. A report on the Glendo area has been completed and is being published as a U.S. Geological Survey water-supply paper. Periodic measurements of water levels in observation wells will be continued in the Wheatland Flats area and in the North Platte Irrigation District in eastern Wyoming and western Nebraska.

A continuing program in cooperation with the city of Cheyenne relates to the effects of ground water pumpage in the area. A progress report each year summarizes the results.

A statewide network consisting of about 240 observation wells is used to obtain information regarding the amount of water in storage and water-level fluctuations in the various water-bearing formations. The data is compiled and published periodically.

Problems in ground water management practices usually involve the effects of manmade disturbances on natural water systems. The Ten Sleep sandstone in the Big Horn Basin is being used in research on the characteristics and functional nature of hydrologic systems, so that quantitative predictions can be made of the response of the systems to manmade disturbances.

A special investigation of the mining hydrology of trona deposits in the Green River Basin was begun in November 1960 and is nearing completion. The study is expected to provide important data on the occurrence and quality of ground water in strata adjacent to the trona deposits and will assist in the efficient exploitation of the deposits.

Under its soil and moisture conservation program, the Geological Survey is conducting investigations dealing with the hydrologic effect of conservation practices on the public domain and Indian lands. Close working relationships are maintained with the Bureaus of Land Management and Indian Affairs. The program includes investigations relating to the development of range water supplies to facilitate the distribution of grazing, to runoff and sediment yields in small watersheds, and to progress of erosion. During 1964 it is expected that about 40 individual well sites proposed by the Bureau of Land Management will be examined in the Wind River, Powder River, Big Horn, and Green River Basins.

Senator McGEE. Ground-water development is rather significant to us in Wyoming.

Mr. NOLAN. Ground water is important to many of the Western States.

AUTOMATION OF STREAM-FLOW MEASUREMENTS

But I did want to mention before I moved on, the next exhibit, which shows the progress that we are making in replacing the old recorders that we use at the several thousand streamflow measurement stations by so-called digital recorders, the records from which can be fed directly into automatic data processing equipment.

This is not only speeding up the processing of the records, but makes possible also a considerable saving in the acquisition of the streamflow discharge measurements.

Senator BIBLE. May I ask one question, simply as a matter of interest. How many stream flow measurement devices do you have that are operational in the United States? You mentioned thousands.

Mr. NOLAN. I think there are about 8,000. Mr. Hendricks probably has the exact figure.

Mr. HENDRICKS. About 7,800 continuous record stations and approximately the same number of partial record stations.

Senator BIBLE. Scattered all over the United States, measuring streamflow?

Mr. NOLAN. Yes, sir.

Senator BIBLE. Thank you.

### CONSERVATION OF LANDS AND MINERALS

Mr. NOLAN. The last of the major operational groups in the Survey is the Conservation Division.

Under conservation of land and minerals the Geological Survey will supervise the collection of an income of $197 million from oil, gas, and mineral royalties in connection with the supervision of development operations on Government and Indian lands. The requested program increase of $100,000 provides for an increase in these supervisory activities which cost about 1.5 percent of the total income.

And the chart, I think, shows by the line, which is rising rapidly to the right, the amount of royalties that are collected, whereas, the line sloping down to the right shows the cost of the activity in terms of the total income. This shows the results of the very considerable efforts we have made in recent years to cut that cost.

The continually increasing rate of oil production and prospecting activities in Alaska and on the Outer Continental Shelf in the Gulf of Mexico and off the west coast accounts for most of the requested program increase. And as can be seen from the chart, there has been an extremely rapid increase in income to the Government from the oil and gas operations on the gulf coast.

Senator MCGEE. I am interested in this unitization section.

Mr. NOLAN. There are some unit plans on the Gulf Coast, sir, just as there are other places.

### WASHINGTON UNITIZATION SECTION EMPLOYEES

Senator MCGEE. What about the unitization section here in Washington? How many employees are there in that section of the Survey?

Mr. NOLAN. The unitization work to a large degree is initiated and carried out in the field offices of the Conservation Division. We have only four full-time employees in the section here in Washington.

Senator MCGEE. Only four? The reason for that inquiry is that I have an inquiry from the Casper, Wyo., Chamber of Commerce which is interested in it. The oil industry is very much interested. Much oil activity is concentrated in the Casper area, and many persons are concerned about the size of the section now here in Washington.

Mr. NOLAN. Most of the unitization plans are drawn up through the seven regional oil and gas offices in the field, including Casper. We keep the small number of people here in order to accomplish the coordination with the Solicitor's Office and the Secretary's Office. The Secretary must approve the unit agreements for Outer Conti-

nental Shelf leases as they come in. I think the small group is essential for central office review, coordination, and processing.

### Mineral Leasing Increase

I have one other chart which gives some idea of the rate at which the mineral leasing is increasing.

The next two charts, also, show the rate at which the amount of income to the Government and the number of individual leases from which production is being obtained is increasing.

### Public Use of Maps Increasing

Finally, the last chart shows the rate at which public use of our maps is increasing. The lower part of these bars shows the number of new maps printed, the upper part shows the number of reprints, which reflects the increasing demand for maps. As I have observed earlier, the more than 5 million maps that we are distributing in 1964 will bring in an income to the Treasury of something on the order of $750,000, and this doesn't count the revenue received from sale by other agencies of the remainder of the 16 million we will print this fiscal year.

### Nuclear Research Laboratory

The final item that I wanted to mention represents an increase of $900,000 over this year for a special purpose nuclear research laboratory, which we need in Denver near our present offices, and which will enable us to work on new methods for application in many fields of geology and hydrology. In the present appropriation act $100,000 was provided for preparation of plans. That has been accomplished. We hope to be able to start construction next year.

Chairman Hayden. Who will construct it?

Mr. Nolan. This will be done by GSA through an agreement that we have reached with them.

### Washington Area Building

Finally, the site studies for the long-sought Washington building which were made possible by the committee in last year's bill are currently underway, and we hope it will be possible to have detailed planning start in the near future.

Chairman Hayden. What have you done as the result of the committee's provision last year for a study of the housing needs of your activities in the Washington area?

Mr. Nolan. With the $100,000 that was made available for the current year a preliminary study has been made for the design of a building to house the Survey's activity in the Washington metropolitan area.

We are undertaking the negotiation of an agreement to conduct a more detailed analysis of the adaptation of the necessary facilities to a suitable site.

### Procurement of Site and Building Plan Progress

Chairman Hayden. The appropriation act for the General Services Administration included an item for the procurement of a site and

the preparation of plans for this Survey building. What progress has been made as a result of that action?

Mr. NOLAN. To the best of my knowledge, sir, there has been very little, if any, progress made by the General Services Administration. There has been some discussion with them but we have been concerned that there has not been more progress made. We had been hopeful that advantage could be taken of available sites so that development plans could be focused on a specific site. Suggestions have been made that much of the Survey's activities should be located outside of Washington, but this is no solution.

Chairman HAYDEN. I don't see what advantage it would be for the Government to take the Geological Survey far away from Washington. Don't you need to have a location in this vicinity because of your close contacts with other agencies of the Government here?

Mr. NOLAN. We certainly believe very strongly that we should remain in the Washington area and that these contacts should be maintained. In addition to a headquarters facility here, we need a center of operations for the eastern seaboard that would be comparable to existing centers at Denver, Colo., for the Rocky Mountain area and at Menlo Park, Calif., for the west coast. Washington is conveniently located to serve as base of operations for an area extending from Maine to Florida. In addition, the availability of the operational group provides effective and economical technical support in the day-to-day functioning of the headquarters facility in its relationships to the Congress, the Department, industry, cooperators—as well as the day-to-day relationships with scientists of other organizations centered in Washington. The growth of Washington as a scientific center emphasizes the importance of scientific organizations such as the Survey having a location there. I sincerely believe that the activities of the Survey are so interlocked with the activities of many other organizations located in Washington and are a necessary point of contact for so many official and industry visitors to the city that performance of our job from some remote location would be greatly handicapped.

Senator BIBLE. I just want to ask a couple of questions, some that have been suggested, and one I had in mind myself.

NUCLEAR RESEARCH LABORATORY

I wish you would supply for the record the data and information concerning this Nuclear Research Laboratory which you say is much needed near Denver?

Mr. NOLAN. Yes, sir.

Senator BIBLE. The purpose of the question, and what I am trying to drive at is that we have many facilities, such as radiological labs, which have facilities on the test site in Nevada. These conduct many, many nuclear studies, and I would like to see your justification of what you say on the last page of your statement. Please supply for the record. I don't want to burden you now.

(The statement referred to follows:)

SPECIAL-PURPOSE NUCLEAR RESEARCH LABORATORY

The Geological Survey needs the proposed Laboratory in order to apply newly developed nuclear techniques and equipment to problems in geology and hydrology. In addition, the Survey plans to utilize the facility to devise new methods, which

utilize this equipment, that will improve our ability to explore for new sources of minerals and to extend our knowledge of the behavior of water in surface streams and in underground aquifers.

To illustrate, activation analysis has been developed as an analytical procedure for determining the occurrence of minor elements such as the recently developed beryllometer in the exploration for beryllium. Use of this technique enables the geologist to understand better the processes by which the ores are formed and provides a better basis for mineral exploration.

Radiological tracers have proved to be a useful tool in following the course and behavior of chemicals which enter in increasing quantities into hydrologic systems, and to facilitate determination of dilution and rate of travel in streams of materials that could have serious impact on municipal supplies. The use of activatable tracers in field studies not only eliminates all cause for public objections such as are stimulated by the use of radioactive isotopes, but also allows the study of long-term processes.

In order to meet the heavy demand for chemical analyses which are basic to investigations in geology and hydrology, radiological methods have been introduced in the Survey laboratories. In the interest of economy, greater efficiency, and safety for the men and women now engaged in this type of analytical work, it is necessary to consolidate the various laboratory groups in a special-purpose Nuclear Research Laboratory. The advantages of applying the powerful tools of radiological chemistry to our extremely heavy analytical load cannot be overemphasized. Currently some 40,000 or more analyses are needed yearly for normal geological and hydrological studies and this need can be expected to become even larger. We also hope to initiate studies whereby some of the future needs can be anticipated and handled more efficiently and economically through the use of radiological chemical techniques designed especially for some of the unique analytical problems which confront the geologist and hydrologist.

The Laboratory is designed to consolidate and service existing needs related to the normal work of the Geological Survey and to improve its capabilities in these fields. It will advance the safety of the operations. It will not duplicate other available facilities.

### Detection of Underground Explosions

Senator Bible. It has been suggested, and I think it is a very timely suggestion, that you describe this VELA project for nuclear detection. Now, is this a cooperative effort with AEC?

Mr. Nolan. The work up to now has been not with AEC, but with the ARPA group in the Department of Defense. This group in Defense has financed the specific work that we have done in nuclear detection. As a result of this support we have become very much interested in the further application of the techniques that we have developed. The information that has been obtained applies to the more general questions of heat flow, geothermal energy, and the like.

With the strong support and encouragement from the ARPA group, it is proposed to supplement current work by a more broadly based study. This is our proposal for additional work to be done by the Geological Survey.

Senator Bible. A number of these projects, as you know, are being carried on in my State. Most of them, I think, are AEC projects.

Mr. Nolan. Yes, sir.

### Shoal Project Cooperation

Senator Bible. Are you a cooperator in the so-called Shoal project which is being conducted just east of Fallon?

Mr. Nolan. Yes, sir. We were active participants in the selection of the Shoal site. In addition, we have a very considerable program with AEC support at the Mercury test site; a number of Survey men are stationed there. Much of the work at the test site has been to

anticipate and to protect against the effects of the underground shots on the local environment to determine their effect on the rocks themselves and especially to determine the effect on ground-water conditions. The VELA project, on the other hand, is sponsored by Defense, and is aimed at the detection of underground shots, to distinguish between them and natural earthquakes, and to help detection at a distance. The work that we have done for the VELA project has been carried on to a small degree in Nevada, but extends pretty much throughout the country.

Senator BIBLE. Mr. Chairman, this is most important work. As you know, Fallon, Nev., is the site of the Newlands project. And this is also very important for a man in political life, because we had been having some underground explosions over the years, and these people who live below the dam were very much interested as to whether the Geological Survey was correct in saying that the dam wouldn't break. So all I know is that if the dam had broken I would be back practicing law in Reno, Nev. I assured them that this wouldn't break. And I relied on these men in DOD and AEC and the Bureau of Reclamation. And so I hope that these very interesting facts in this field are correct.

Mr. NOLAN. We have a great deal of interest in this program and we are confident it is the type of program that is going to promote understanding in many areas.

Senator BIBLE. I am sure it is correct.

### LONG-DISTANCE COMMUNICATION THROUGH UPPER MANTLE

May I ask just one question? What is the value of improving the long-distance communication through this upper mantle that you were describing? What is the benefit?

Mr. NOLAN. I think the real importance of it is that currently long-distance communication through the atmosphere is subject to disturbance by atmospheric conditions, by sun spots, and the like. It isn't, in other words, a hundred percent effective at all times. We know this just from radio interference and "snow" on our television screens. The expectation is that through the transmission of electrical or other signals through the crust and through the mantle, it will be possible to assure a much higher degree of reliability under all conditions and the signals will not be subject to outside interference.

Senator BIBLE. With whom do you conduct this work?

Mr. NOLAN. Various governmental agencies.

### CONTRIBUTIONS BY GOVERNMENT AGENCIES

Senator BIBLE. And they are the main contributor's moneywise?

Mr. NOLAN. They have been up until now. The proposal is that this will become a part of a comprehensive program of studying and understanding the conditions in the crust that may affect signal dissemination. The upper mantle project is an effort to bring a comprehensive viewpoint to the environment which will have a bearing not only on the objectives of VELA, but as a package it is expected will yield results that will be applicable to a great many areas, and thus strengthen all of them rather than to have the efforts broken up into a number of independent and uncoordinated projects.

PARTICIPATION BY PRIVATE INDUSTRY

Senator BIBLE. Does private enterprise cooperate in this? For example, I have A.T. & T. in mind. I can see how this could be of great value to them. Are they a participant in any way, or are the big radio industries, or the big television industry?

Mr. NOLAN. Not that I am aware. Most of the work so far on the transmission of signals underground that we have done for other governmental agencies is in areas in which work is just beginning. And I am not certain to the extent that other groups have participated.

Senator BIBLE. Thank you, Dr. Nolan.

Thank you, Mr. Chairman.

Chairman HAYDEN. Thank you.

## BUREAU OF MINES

**STATEMENT OF MARLING J. ANKENY, DIRECTOR, BUREAU OF MINES, ACCOMPANIED BY PAUL ZINNER, ACTING ASSISTANT DIRECTOR, MINERAL RESOURCES DEVELOPMENT; JOE B. ROSENBAUM, ACTING ASSISTANT DIRECTOR, MINERALS RESEARCH; JAMES WESTFIELD, ASSISTANT DIRECTOR, HEALTH AND SAFETY; HENRY P. WHEELER, JR., ASSISTANT DIRECTOR, HELIUM; JOHN E. CRAWFORD, PROGRAM COORDINATOR, AND ELWOOD THOMSON, CHIEF, DIVISION OF BUDGET.**

FISCAL YEAR 1965 CONSERVATION AND DEVELOPMENT BUDGET

Chairman HAYDEN. For fiscal year 1965 the Bureau of Mines asks $30,377,000 for "Conservation and development of mineral resources," an increase of $973,000 over the amount appropriated for this purpose in fiscal year 1964. The justification statement will be included in the record.

(The statement referred to follows:)

CONSERVATION AND DEVELOPMENT OF MINERAL RESOURCES

HIGHLIGHT STATEMENT

*Long-range objectives and budget year program*

Natural resources, particularly an adequate, dependable supply of the mineral raw materials and fuels from which are derived a continually increasing share of the necessities and luxuries of modern civilization, assume ever greater importance as the rest of the world strives to match the U.S. standard of living. American mineral production and use technologies are today the world's most advanced and are still improving; however, the rate of improvement is not commensurate with the decline in tenor of domestic deposits and increase in costs of production. The percentage of the U.S. mineral requirements met by imports increases every year. At the same time, world demand for minerals is growing at such a rate that competition for supply from foreign deposits may soon provide other nations with a powerful political tool. Domestic mineral resources are vast, if the technology to produce them economically can be developed. Therefore, supplies may continue to be imported without the United States becoming vulnerable through dependence on foreign sources, provided an economic domestic production capability is retained.

The long-range objective of the Bureau's minerals research program is to insure a continuously advancing mineral technology that will (1) encourage production from domestic mineral deposits at costs that will not adversely affect the national economy; (2) assure a healthy domestic mineral industry capable of meeting varying requirements for domestic production and maintaining its important

contribution to the total economy; (3) improve efficiency and safety of mineral mining and processing operations; and (4) minimize waste and improve recovery of irreplaceable domestic mineral resources.

The segments of the minerals research program must be so constituted that they can be responsive to the national need as indicated by the mineral resource study activity. Therefore, the various research programs must be balanced with respect to (1) short-range research on problems of immediate importance and (2) longer range research to develop new scientific knowledge and concepts related to the natural phenomena involved in mineral extraction, processing, and utilization which can quickly be brought to bear to provide practical solutions to new problems as they arise.

In mining research fundamental studies of the basic nature and mechanical behavior of rocks will be continued. Applied research will be conducted on such presently critical technologic problems as artificial support of underground openings, rock fragmentation and mine operation design. Research to develop means for reducing and eliminating the hazard from methane outbursts in mines will be expanded substantially to include both basic studies to develop a better understanding of the physical factors that govern methane occurrence, migration, and emission into mine workings and applied research to devise and test interim protection techniques that will reduce the hazard until permanent solutions based on sound scientific principles can be developed. Research on acid mine water abatement, ground control, rock drilling and blasting, transportation, mineral deposit sampling and open-pit slope design will receive slightly increased emphasis.

The metallurgy research program will be reoriented to better approach the long- and short-range goals of the Bureau. Working toward the goal of development of economic processes for treatment of low-grade mineral materials, effort will be intensified in the field of beneficiation. Work will include basic and applied studies in grinding, conditioning, and concentration methods. Procedures will be sought for improved accuracy and speed in the analysis of research products and to meet the demand for parts-per-billion measurement of impurities in high-purity materials. Investigations of shorter range importance include those to determine the reason for failure of zinc volatilization retorts, casting studies designed to develop improved procedures for forming difficult-to-shape metals such as beryllium and tungsten and research for preparing mineral-base materials with high strength properties at elevated temperatures.

The broad objectives of the resources investigations program are to assure an adequate, dependable, and continuing supply of minerals and fuels, promote the conservation and wise utilization of domestic resources, improve the economic position of domestic industry, and develop mineral-based materials to meet the increasingly rigid requirements of rapidly advancing industrial, defense, and space technologies.

Careful planning to assure the orderly development of this country's resources of peat, coke, coal chemicals, minerals, petroleum, and oil shale to meet tomorrow's needs is of growing importance. To illustrate this, it should be noted that in the past 30 years the United States has consumed more minerals than all the peoples of the world have previously used. That current demands for mineral and fuel raw materials are being met without difficulty is primarily due to the technological and exploratory efforts since World War II. But with national requirements constantly expanding and shifting among commodities, the Nation faces a future of critical shortages unless it can continue to add to its fund of knowledge of all factors that permit discovery and processing for utilization of new sources of these essential raw materials.

The bituminous coal research program is designed to develop new and improved methods of processing and utilizing coal that will improve its competitive position in the overall energy market. The program involves both short- and long-range projects for meeting the objectives with increasing attention being given to those of shorter range. In the short-range projects, the Bureau will continue its program of test work on the coal-fired gas turbine, which if successful, will be a means for opening additional markets for coal because of the increased efficiency obtained with this type of power generation. Research on Western lower rank coals will be expanded for improving their economic use in making steel and as a source of gas that can be used either as a fuel or a raw material for making chemicals. A new project will be initiated for making producer gas from caking coals for use in a variety of industrial processes.

The anthracite program is specifically concerned with accomplishing advances in the mining, preparation, and utilization of Pennsylvania anthracite. Primary

efforts in applied research are aimed at developing new or improved mining and preparation equipment and methods, and the establishment of additional uses for anthracite as a fuel and basic raw material. Fundamental research on the chemical and physical properties of the coal are governed by the same objectives. Mine drainage control comprises a further area of special importance to the anthracite program. The 1965 plans call for demonstrating the technical and economic feasibility of the integrated hydraulic mining-hoisting system and proving the value of the Bureau's boring machine in developing and mining thin, pitching seams.

The petroleum, natural gas, and oil shale programs will provide conservation of these vital fuel resources through research directed to increased discoveries of oil and gas from underground reservoirs, increased productive capacities of oil and gas wells, increased efficiencies in the processing of oil and gas for ultimate consumption increased economies in utilization, and increased technologic data for the establishment of an oil-shale industry. Adequacies of present supplies face mounting future demands that must be met at the most economic levels to support the Nation's expansion. These programs also will provide Government, as well as industry, with basic data, both scientific and economic, that are required for economic and policy guidance.

Expansion of oceanographic research will be directed toward development of the mineral resources beneath the seas. This is the responsibility of the Bureau of Mines and is recognized as such in the President's national oceanographic program. Incidental to oceanographic surveys by private institutes and Government groups, deposits have been discovered of nodules rich in manganese, nickel, cobalt, and copper, as well as occurrences of gold, glauconite, titanium-bearing black sands, phosphate, and limestone. These and other marine ores await only detailed study by Bureau scientists to unlock the doors of an immense reserve of raw materials for the future use of American industry.

Foreign mineral activities of the Bureau are designed to provide industry and Government with current technical and economic information on mineral developments in foreign lands that affect the mineral economy of the United States. The program includes interpretation of data on resources, production, consumption, international trade, technology, and the actions of foreign governments that affect production and marketing of foreign minerals and restrict foreign markets for mineral products and mining supplies and equipment manufactured in the United States.

*Accomplishments during the past year*

Recent metallurgy research investigations have resulted in numerous significant contributions to scientific and technology knowledge. Some of these accomplishments have received wide industrial interest. For example, Blast Furnace Research, Inc., a cooperative organization of the major U.S. steel companies, has entered into a cooperative agreement with the Bureau of Mines to continue development of injected fuel techniques for iron blast furnaces. Two mica recovery plants were built in Southeastern United States using a Bureau-developed flotation method. An industry-sponsored pilot-scale study demonstrated the feasibility of a Bureau method for extraction of columbium and tantalum chlorides from furnace slags.

In mining research the Bureau developed a rapid simple method for determining tensile strength of rock which promises to be an invaluable new tool for mining engineers. One of its many important potential applications for mine design is in the field of quarry blasting. Since the strength of rock generally varies with direction, a cheap portable device, based on the Bureau technique, will enable the engineer to orient his quarry face to take advantage of the natural weakness of the rock, thus lowering the amount of explosives required and reducing the cost of production.

In coal research, a fully automated transportation system has been designed and constructed to hydraulically transport coarse coal (2-inch top size) in a 1-mile-long, 6-inch-diameter pipeline. The coal will be fed into the line through lock hoppers on the discharge end of two series-connected centrifugal pumps. Considerable interest has been shown in this project. Preliminary calculations indicate that this method of transportation may be the most economical for relatively short distances, particularly underground and from the mine or mines to the preparation plant.

Research from the petroleum, natural gas, and oil shale studies was used by industry to establish a waterflood project in Utah that will yield over 100 million barrels of oil, and to create increased productivity in Pennsylvania oilfields. Mathematical computer programs developed by the Bureau are in use

by industry to predict, with greater accuracy, the production performance of oil reservoirs. Analyses of crude oils, shale oils, oil fractions, and products were completed and published, including identification of compounds never before identified in these oils. Fundamental combustion data for organic boron compounds—rocket propellant fuels—were obtained through new instrumental techniques. Studies were completed on the extent and quality of specific oil shale deposits in Colorado. Laboratory studies have indicated possible technical feasibility of the in situ conversion of oil shale to shale oil.

In resources investigations a study of the mineral raw materials for the chemical industries of California and Nevada was completed and a report published. Through close cooperation between mineral producers and chemical consumers, the raw material requirements and the sources of supply were described together to suggest possible economies through utilization of local resources. A similar study of importance adjoining and possibly extending into the Appalachian area is being initiated in the Ohio Valley. Evaluation of studies were made of many Alaskan mineral resources which would be affected by construction of the Rampart Dam and resulting low-cost hydroelectric power.

*Conservation and development of mineral resources*

| | | |
|---|---|---|
| Appropriation 1963 (including supplementals) | | $27,502,450 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration | | −34,368 |
| Total available, 1963 | | 27,468,082 |
| Appropriation, 1964 | | 29,404,000 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration | | −35,000 |
| Total available, 1964 | | 29,369,000 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | | |
|---|---|---|
| Bituminous coal: | | |
| To provide for research on drainage of methane during mining | +$217,000 | |
| To provide for increased pay costs for fiscal year 1964 positions | +162,000 | |
| | | +379,000 |
| Anthracite coal: | | |
| Decrease in scope of anthracite coal program | −235,000 | |
| To provide for increased pay costs for fiscal year 1964 positions | +9,000 | |
| | | −226,000 |
| Petroleum, natural gas, and oil shale: | | |
| To provide for recovery of shale oil by in situ retorting of oil shale | +200,000 | |
| To provide for increased pay costs for fiscal year 1964 positions | +120,000 | |
| | | +320,000 |
| Minerals and metals: | | |
| To provide for employee compensation payments | +5,000 | |
| To provide for increased pay costs for fiscal year 1964 positions | +376,000 | |
| | | +381,000 |
| Oceanographic research: | | |
| To provide for increased marine minerals research | +126,000 | |
| To provide for increased pay costs for fiscal year 1964 positions | +3,000 | |
| | | +129,000 |
| Foreign mineral activities: To provide for increased pay costs for fiscal year 1964 positions | | +25,000 |
| Net increase, 1965 | | +1,008,000 |
| Budget estimate, 1965 | | 30,377,000 |

*Analysis by activities*

| Activity | Fiscal year 1963, amount available | Fiscal year 1964 | | |
|---|---|---|---|---|
| | | Appropriation | Transfers [1] | Amount available |
| 1. Bituminous coal | $7,342,270 | $7,957,000 | | $7,957,000 |
| 2. Anthracite coal | 1,015,464 | 1,059,000 | | 1,059,000 |
| 3. Petroleum, natural gas, and oil shale | 3,467,046 | 3,862,000 | | 3,862,000 |
| 4. Minerals and metals | 14,949,276 | 15,952,000 | −$35,000 | 15,917,000 |
| 5. Oceanographic research | 50,000 | 53,000 | | 53,000 |
| 6. Foreign mineral activities | 411,694 | 521,000 | | 521,000 |
| Unobligated balance lapsing | 232,332 | | | |
| Total | 27,468,082 | 29,404,000 | −35,000 | 29,369,000 |

[1] Represents transfers to General Services Administration unless otherwise footnoted.

*Analysis by activities*

| Subactivity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. Bituminous coal | $7,342,270 | $7,957,000 | $8,336,000 | +$379,000 | +$162,000 | +$217,000 |
| 2. Anthracite coal | 1,015,464 | 1,059,000 | 833,000 | −226,000 | +9,000 | −235,000 |
| 3. Petroleum, natural gas, and oil shale | 3,467,046 | 3,862,000 | 4,182,000 | +320,000 | +120,000 | +200,000 |
| 4. Minerals and metals | 14,949,276 | 15,917,000 | 16,298,000 | +381,000 | +376,000 | +5,000 |
| 5. Oceanographic research | 50,000 | 53,000 | 182,000 | +129,000 | +3,000 | +126,000 |
| 6. Foreign mineral activities | 411,694 | 521,000 | 546,000 | +25,000 | +25,000 | |
| Unobligated balance lapsing | 232,332 | | | | | |
| Total | 27,468,082 | 29,369,000 | 30,377,000 | +1,008,000 | +695,000 | +313,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*Bituminous coal*

| Subactivity | Fiscal year 1963, amount available | Fiscal year 1964, amount available | Fiscal year 1965, estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| (a) Extraction research | $938,342 | $961,000 | $1,198,000 | +$237,000 | +$20,000 | +$217,000 |
| (b) Processing and utilization research | 5,329,754 | 5,712,000 | 5,827,000 | +115,000 | +115,000 | |
| (c) Resources investigation | 585,179 | 783,000 | 800,000 | +17,000 | +17,000 | |
| (d) Explosives research | 488,995 | 501,000 | 511,000 | +10,000 | +10,000 | |
| Total | 7,342,270 | 7,957,000 | 8,336,000 | +379,000 | +162,000 | +217,000 |

EXTRACTION RESEARCH

The estimate of $1,198,000 is an increase of $237,000 over 1964. The increase consists of $20,000 for increased pay costs, and $217,000 for research aimed at overcoming production problems caused by the emission of methane gas during mining operations.

*Need for increase.*—The increase requested for fiscal year 1965 will constitute the expansion considered necessary for the Bureau to start a well-balanced research program with the objective of developing economic and practical methods for removing the explosive mine gases from coalbeds prior to and during underground mining operations. The sudden emission of methane at the face during mechanical mining continues to take its toll of lives, destroy equipment, and cause losses in production that challenge a mining company's financial capacity to regain production schedules. The full amount of the increase will be applied to this research program and the studies will be coordinated closely with those conducted by the health and safety activity.

*Plan of work.*—A major objective of the Bureau of Mines coal mining research program is to develop a sound scientific basis for an improved coal mining technology that will (1) assure a continuing and adequate supply of a wide variety of coals for metallurgical, manufacturing, steam generation and domestic uses; (2) conserve this irreplaceable fossil fuel through maximum recovery of salable coal; (3) minimize the cost of mining through the use of efficient machines and mining techniques; (4) promote the health and safety of miners by the application of engineering principles, and (5) minimize the defacement of land and contamination of surface waters by reducing subsidence effects of underground mining, restoration of surface mining operations and the abatement of stream pollution by mining wastes.

Although mechanization has increased the productivity of the American coal miner far exceeding any country in the world, many serious technical, economic and social problems exist. There is little hope for significant decreases in the total mining cost with present mining equipment and mining systems; only through imaginative and diligent research can coal's important role be assured in today's highly competitive energy market.

The Bureau of Mines with its nucleus of specialized scientific and engineering personnel is ably suited to meet the challenge of solving these and other basic technical problems now facing the coal industry.

Environmental control: Under this program element are included research in methane drainage and acid-water mine drainage. Methane drainage research will be expanded in fiscal year 1965 by initiating basic studies to develop fundamental information on the occurrence of methane in coal beds that can lead to a permanent solution to the hazard of methane outbursts. The program will include (1) research to determine the capacity of coals to contain methane and the mechanics of containment. (2) fundamental studies of the physical factors that govern the occurrence, migration, and emission of methane into mine workings, (3) field studies to develop techniques for removing the methane from the coalbeds prior to mining, and (4) in cooperation with mining companies demonstrations of means for integrating degasification techniques into their normal mining cycle.

The acid-water mine drainage research program will be moderately expanded in fiscal year 1965 by redistribution of funds utilized in fiscal year 1964 for field trials in hydraulic mining. The expanded program will include the continuation of the evaluation of mine sealing as a means of preventing acid drainage from abandoned mines and applied research to develop improved methods of solidification and cementation. This research is also discussed under the minerals and metals activity. A project will be continued to investigate the possibility of self-sealing a mine internally by the injection of neutralizers to form a sludge, an evaluation of equipment and costs of neutralization, and study of the biochemical effect of iron oxidizing bacteria on the rate of acid-mine water formation. An effort will be made to determine means to minimize the amount and acidity of mine water discharges to the surface from operating mines through cooperative studies with operating mines. In addition, methods for preparing a mine for closure to minimize its acid potential after its abandonment are needed.

Rock disintegration: The Bureau has completed four full-scale field trials on the use of high-pressure water jets to extract bituminous coal. In coalbeds pitching more than about 25 degrees, hydraulic mining of coal was more productive than hand-mining methods. Further extensive field trials in coal are not considered necessary at this time. However, for most efficient hydraulic mining system design, basic data must be developed to determine the optimum cutting rates of hydraulic jets as a function of the physical properties of the coal to be mined, and the effect of such characteristics of the hydraulic jet as water pressure and volume, geometry of nozzle, proximity of the jet to the mineral, and the speed of traversing the jet. As it is impractical to set up a multitude of field trials to determine the minability of a wide variety of coals and even other sedimentary deposits, a simple laboratory technique will be devised to obtain cutting rates. Reduction in emphasis on the field trials in coal will permit some of the funds utilized in these studies to be redistributed to the acid-water mine drainage research program.

Materials handling: After initial extraction, mining is largely a matter of ground support and material handling. A variety of means is available for material handling including hydraulic transportation in pipelines and in open flumes, pneumatic transportation in pipes and transport by chutes, conveyors, mine cars, skips and scrapers.

Work during fiscal year 1965 will be limited to hydraulic transportation research, continued at the same rate as fiscal year 1964, and will include the continuation of

the tests with the 1-mile long test loop to study the effect of such variables as size and specific gravity of the solids, solids concentration and velocity on the pressure drop, erosion, corrosion, and power requirements.

Ground stabilization and control: Studies of coal longwall mining that have been made by the Pittsburgh Mining Research Center will be continued at the Denver Mining Research Center with emphasis on stress distribution and concentration studies in longwall mining of coal. The change in location of the study will permit applying the fully developed capability of the rock mechanics unit at Denver on the problem.

Fundamental aspects of mine rock behavior: This study is related to practically all the facets of a total mining operation from exploration through beneficiation. In the case of coal, the mechanical and physical properties determine to a great extent the mining system; the geometry of the openings; the type of roof support required; the dimensions of coal pillars used for support; the amount of energy required for extraction; and the material required for cutting and drilling tools. To this list might also be added the fact that to a great extent the physical properties of the coal are related also to the amount of methane that may be held in the pores and microfractures of the coal and the rate at which it can be moved from a highly pressurized area into the mine atmosphere. It may thus be seen that the solution to many of the practical mining problems is contingent on the mining engineer's ability to assess the properties of the coal at the face and the soft underlying and overlying rocks. Application of scientific and engineering principles in coal mining must necessarily await the development of fundamental measurements of the coal and enclosing rocks in their natural and disturbed environment. The program will be coordinated with the basic research program discussed under the minerals and metals activity. Significant progress has already been made in the studies of rocks and minerals other than coal, and initial efforts in this study will be to adapt the techniques and methods developed for the studies of minerals to a similar study of coal.

Coal preparation: Evaluation of coal preparation equipment using dense-medium suspensions in water to effect the separation will be studied. It is anticipated this study will enable the coal operator to select and install the proper cleaning method and equipment best suited to the quality demands of the market and the washing characteristics of the coal to be cleaned.

Studies of the design and operation of the hydrocyclone will continue. This cleaning unit holds promise of effective separation of coal from refuse without the use of dense medium thereby materially reducing the cost of operation.

A heavy liquid cyclone will be developed as a means to monitor continuously the feed to cleaning units. Success in this field will provide instant detection of malfunction of washing equipment thus permitting prompt remedial action.

One of the most pressing problems in coal preparation is the need for cheaper and more effective means to dewater flotation tailings. Studies will be continued of the absorption properties of tailing materials as related to size and mineralogical composition. The objective of the investigation is to improve the handling characteristics of the refuse material for ready disposal.

The expanding market for lignite is in the generation of electric energy. Many of the new power stations are considering use of pulverized lignite as fuel. Studies will be made of the power requirements to grind lignite in various types of mills both with and without in-the-mill drying. To develop a more effective method of drying lignite, the principal of pulsating combustion will be studied.

One of the fastest growing trends in coal preparation is the use of froth flotation to clarify the wash water and to clean and upgrade the fine sizes of coal. A study is proposed to investigate simultaneously the numerous variables that effect the flotation process and analyze their primary effects and interactions in relationship to yield and quality of float product. Consideration will be given to the use of a digital computer for analyzing statistically the mass of experimental data generated by the study.

Coal sampling, analysis, and inspection: This continuing program involves the inspection, sampling, analysis, and evaluation of coals available for purchase by the Federal Government to provide procurement agents and others with information on the availabilities, qualities, and characteristics of coal within geographic areas of the United States, for the purpose of increasing efficiencies of utilization and minimizing costs of operation. Advice and consulting service is given upon request to other Government agencies in the preparation of coal bid specifications, evaluation of coal bid responses, selection of proper procedures to obtain representative coal samples of coal shipments, and related analytical activities.

PROCESSING AND UTILIZATION RESEARCH

The estimate of $5,827,000 is an increase of $115,000 over 1964, all of which is for increased pay costs.

*Plan of work.*—During fiscal year 1965, emphasis, is planned on the operation of the coal-fired gas turbine. The study into the injection of coal as a supplemental fuel into the blast furnace will be concluded and the research effort transferred to the program to develop further and operate more continuously the slagging gasifier using lignite as fuel. The cooperative study with the Atomic Energy Commission on the nuclear gasification of coal will be deferred and a cooperative study with the Commission started on the closed cycle gas turbine using inert gases as working fluids. Bureau funds now devoted to the nuclear gasification study will be directed toward higher priority activities involving the manufacture of producer gas under pressure from caking coals with little or no pretreatment to destroy the caking characteristics and the cleaning up of producer gas under pressure over a wide range of temperature levels.

The following activities will also be included in the program: The entrainment carbonization of western coals to prepare a char that can be substituted for a portion or all of the low- or medium-volatile bituminous coal used in blends for the production of metallurgical coke by the western steel industry will be expanded. This investigation, if successful, will make it unnecessary for the western steel industry to import coal for blending purposes from distant eastern sources and, through the cost savings involved, to improve its competitive position with foreign produced steel. Formed coke, produced by pelletizing or briquetting the char will be studied.

Facilities are maintained to analyze industrial water used in the heating and powerplants of the Federal Government. A consulting service is provided to other Government agencies, upon request, concerning the most efficient techniques of waterside boiler maintenance. Technical information is published on boiler feed water, cooling water treatment, and industrial water qualities. These services result in considerable saving to the Federal Government by minimizing maintenance and replacement costs of heating and powerplant equipment, and are valuable guides to public and private industrial water utilization.

Operation of the slagging fixed bed pressure gasifier will continue on lignite to determine optimum conditions for operation. Modifications will be made to improve reactor and process design and to permit maximum throughputs and improved gas quality at pressures up to 450 pounds per square inch gage. Around-the-clock operation will be conducted to determine life of refractories, tuyeres, and other high temperature components. Design data for prototype commercial scale gasification will be obtained.

A semipilot plant scale experimental unit for production of carbon disulfide from lignite char will be constructed and operated for establishing optimum conditions and obtaining commercial scale design information.

Semipilot plant equipment for a dilute phase system will be constructed and operated to determine conditions under which dry coal and hydrogen can be reacted under pressure to produce high British thermal unit gas autogenously without use of external heat. Modifications of the process will be made as needed to achieve autogenous operation and to obtain the quality of gas and conversions of coal desired.

Exploratory studies will be conducted on dry coal hydrogenation to liquid fuels. It would eliminate pastemaking and preheat operations and equipment required in the conventional process. Other novel ideas will be sought and investigated.

Reacting coal at extremely high temperatures in a gaseous plasma for making valuable chemicals will continue. Hydrogen and other gases will be used.

Preheating of lump coal in a falling-bed, up-flow hot gas system, for destroying the caking properties will be investigated to decrease time required for effective treatment. Equipment will be constructed, and pretreated coal fines will be gasified in a continuous flow 2- or 3-step fluidized system to simulate gasification reactions now obtainable only in the Lurgi fixed-bed lump coal gasifier.

Catalysis of the gasification reaction at moderate temperatures will be investigated and a bench-scale externally-heated reactor will be constructed to determine the feasibility of gasifying only the hydrogen-rich portion of the coal in a balanced operation which would yield only sufficient char required for plant power and for combustion to furnish the gasification reaction heat.

A semipilot plant scale unit will be designed and constructed to determine optimum conditions for synthesis of methane in a tube wall reactor in which the

catalyst is flamesprayed on the wall. Engineering and design information will be obtained for prototype commercial units. The reactor will be tested for production of liquid fuels as well. Search for a cheaper catalyst such as flame-sprayed Allen Wood magnetite for use in the tube wall and hot gas recycle processes will continue.

Upon completion of investigation of production of hydrogen cyanide from bituminous coal, experiments will be made in the production of carbon disulfide using similar techniques. Production of carbon black from coal will be considered and plans developed for its investigations.

The search for more efficient and cheaper solvents and absorbents for purification of synthesis gas will continue. The effectiveness and efficiency of materials showing merit will be determined on bench-scale continuous-flow equipment.

A pulse-jet system for conducting chemical reaction of coal will be evaluated. If such a system appears to be of merit, gasification of coal and making chemical from coal will be investigated in the laboratory.

Data on pneumatic transport of coal obtained in a 1-inch-diameter line will be evaluated and correlated and larger systems for 2- and 3-inch-diameter lines will be installed and operating data obtained for extrapolation to commercial-size lines.

If separation of ash material from pulverized coal by dielectro-phoresis now being conducted in laboratory-scale apparatus indicates merit, larger scale equipment will be designed and operated to obtain data for determining the economics for such a process.

A pilot-scale combustor for producing dust laden synthesis gas will be constructed and the efficiency of the pilot-scale electro-static precipitator for removing dust from hot synthesis gas under pressure will be determined. The use of corona to accelerate chemical reaction will be carried out on a larger scale equipment as indicated by the success of laboratory experimentation now in progress.

Work will continue on the upgrading of low temperature tars. Emphasis will be placed on conversion of the tar and/or fractions to valuable products such as pitch for electrode carbons and olefins to alcohols for plasticizers and soft detergents. New techniques and possibilities of producing new products for which commercial demand may develop will be investigated. Semipilot plant equipment will be constructed and operated to determine economics of the upgrading processes indicating merit.

Pelletizing and sintering equipment to investigate the utility of fly ash from combustion of coal in powerplants will be operated to make lightweight aggregate. Fly ash from a variety of coals of different ash composition will be tested, and the composition and aggregate quality will be evaluated. Use of fly ash as road-building material, soil conditioner, etc., will also be investigated.

In the study of the magnetohydrodynamic process of electric power generation, a high-temperature combustion unit burning coal at 4,000° F. will be operated to determine the effect of coal ash and seeding material on steam and heat exchange tubes. Following these tests, the equipment will be redesigned for operation at 5,500° F. Factors to be determined include the extent of ionization and electrical conductivity and corrosion of magnetohydrodynamic components induced by coal ash.

Increased attention will be given to solution of ash problems associated with combustion of lignite at powerplants in North Dakota and adjacent States.

Work will continue on development of a meter for determining simultaneously the amount of moisture, ash, and sulfur in moving streams of coal, for example, on a conveyor belt.

For obtaining valuable chemical products, experiments involving the reaction of coal under the influence of various forms of electric discharge will be made.

For a better understanding of the complex physical and chemical nature of coal for its improved processing and utilization, studies of coal structure will continue using all available modern analytical tools and techniques.

Work will continue on the study of coal combustion in fuel beds under pressure as a source of clean hot gas for the gas turbine. The development of instrumentation for measurement of radiant heat flux within furnaces will be extended to field studies to determine flame configuration and its effect on heat transfer from flames and to find explanation of hot spots not reasonably explained by the furnace radation model studies. Emphasis in the continued work on deposits and corrosion of boiler surfaces resulting from the release of mineral matter from coal will be shifted more to the study of the reactions of mineral matter under the high temperature conditions of combustion processes. Equipment and techniques developed for the laboratory study of pulverized coal flames will be adapted to studies of the release and reactions of mineral matter in flames.

The effect of process variables on the production of chemical coke suitable for the carbide, phosphate and similar industries on a pilot-plant chain-gate stoker will be investigated. Emphasis will be placed on achieving higher coal feed rates, better furnace performance, and utilization of weakly coking coals.

To utilize coal more efficiently for carbonization, attempts will be made to elucidate the coking process by determination of the structure and composition of the chloroform extracts of chars produced at temperatures within the plastic range, thermogravimetric studies of coals and blends, and the effect of particle size on the type, quantity, and rate of volatile evolution at temperatures within the plastic range.

A study will be made to determine whether the tumbler stability and hardness of coke obtained by ASTM methods at room temperature follows the same pattern as those tested at elevated temperatures similar to those in blast furnaces, where the coke is utilized. If the cokes do not follow the same pattern when tested hot as when tested cold, the number and type of coals that can be used for commercial carbonization may be increased markedly.

RESOURCES INVESTIGATIONS

The estimate for the subactivity for fiscal year 1965 is $800,000, an increase of $17,000 over 1964 all of which is for increased pay costs.

*Plan of work.*—The funds requested for this program will be used to make resources investigations, assemble comprehensive information and report on coal's changing position in the energy market as compared to other energy fuels and waterpower, and to make an assessment of coal's position in the heavily increasing national energy requirements. Related factors include shifts in patterns of coal distribution from districts of origin to States of destination; changes in f.o.b. mine costs and value of output; changes in exports and influencing factors in the international energy market as they affect U.S. coal exports and our international balance of payments; potentials for increasing coal exports under national or international trade expansion of data on coal consumption, marketing, and trade so that studies and analyses can be made on State and regional breakdowns for guidance to local industry and communities and the Government.

Special studies will be made in selected areas of the possibilities of mine-mouth powerplants, with particular attention to localities where unemployment is high as a result of reduced employment in coal mining, as in the Appalachian area.

Surveys will be conducted to determine the extent of the remaining minable reserves of metallurgical coking coals on an area, county, and State basis to obtain information relevant to further coal research in the blending and modification of marginal coals or noncoking coals. Investigations of the coals of the Arctic coalfield in Alaska will be continued, using special equipment moved in last season to obtain bulk samples for analysis and testing. Coalfields of southwestern Utah will be studied with a view to appraising their economic availability, considering the various factors in cost of production, and also analyzing various methods of marketing and utilization.

Surveillance will be maintained of commercial, industrial, and consumer needs pertinent to the reserves, production, distribution, and utilization of coal and related products; engineering, technical, and related economic studies will be conducted pertaining to mining operations, consumption, and other coal-related problems, and recommendations will be made for technological research based thereon. Comprehensive reports will be published pertaining to the various phases of coal mining operations and to related trends and forecasts and to marketing, consumption, exports, and other important features of the coal industry, coal production, and trade.

Upon request, and supplementing other analyses pertaining to coal and coal utilization factors, technical information and advice will be given other Federal agencies and investigative tests will be conducted on heating and powerplant equipment, both new and old, to establish information to effect efficient operation or to ascertain if contractual obligations of Government purchases are fulfilled by the contractors. In addition, assistance will be given on fuel combustion and ash deposition problems, fuel selection, equipment maintenance, and comparative fuel cost studies.

EXPLOSIVES RESEARCH

The estimate for this subactivity for fiscal year 1965 is $511,000, increase of $10,000 over 1964 all of which is for increased pay costs.

*Plan of work.*—Funds requested for this subactivity will be used by Bureau laboratories and offices for a continuing program of fundamental and applied re-

search involving (1) the development of safer explosives for use in underground coal mines and in other underground operations where a gas and/or dust explosion hazard may exist; (2) approval testing and monitoring of explosives of commerce and related items to determine their conformance to safety standards prescribed in published schedules; (3) the safety and performance characteristics of commercial explosives and blasting agents; and (4) factors pertinent to the reduction of fires and explosions in industries producing, transporting, or utilizing the mineral fuels and their products. This program work will be closely coordinated with related research supported by other governmental agencies and industry.

The Bureau's objectives will be accomplished through short- and long-range, often interrelated, research programs which include laboratory, pilot plant, and field investigations. A balance is maintained between the solution of practical problems of immediate interest and fundamental studies for the development of information necessary for the solution of future problems.

The relatively widespread use of ammonium nitrate-fuel oil (AN–FO) in underground mining operations makes it essential to place emphasis on the safety characteristics of such mixtures. Within the limitation of funds available, a start will be made on a study to determine the relationship between the physical properties of the raw AN and factors believed to affect the safety and performance of the blasting agent such as aging; evaporation of oil from mixture; migration of oil through mixture; type of oil added; etc. Additionally, work will be initiated on the hazard potential of sensitized ammonium nitrate prepared as a water resistant slurry. Practically no safety information is available on this very important commercial explosive.

Long-range, basic investigations will be continued on combustion characteristics of hybrid flammable gas-combustible dust-air mixtures; initiation and propagation of flames in flammable gas-air mixtures; initiation and propagation of flame through incompletely mixed (layered) systems of combustible gas in air; hazard characteristics of potentially explosive materials of commerce.

Investigation of factors affecting the incendivity of explosives to flammable gas-air mixtures will be continued. Research will be directed also toward the development of test procedures which will predict more definitively the hazard potential of various explosives materials.

All work will be closely coordinated with other work of the Bureau, particularly that relating to safety in the mineral industries. Cooperation with other governmental agencies and industries having problems involving explosives and explosion hazards will be continued. The broad experience of the scientific staff will be available as needed for consultation regarding potentially hazardous situations.

*Anthracite coal*

| Subactivity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Extraction research | $412,278 | $430,000 | $328,000 | −$102,000 | +$4,000 | −$106,000 |
| (b) Processing and utilization research | 515,856 | 512,000 | 400,000 | −112,000 | +4,000 | −116,000 |
| (c) Drainage control | 87,330 | 117,000 | 105,000 | −12,000 | +1,000 | −13,000 |
| Total | 1,015,464 | 1,059,000 | 833,000 | −226,000 | +9,000 | −235,000 |

EXTRACTION RESEARCH

The estimate for this subactivity for fiscal year 1965 is $328,000, a net decrease of $102,000. This decrease consists of a program decrease of $106,000 and an increase of $4,000 for increased pay costs. The decrease is part of an overall decrease in the anthracite program requiring termination of a number of projects by the end of fiscal year 1964, in order that other phases of research showing greater potential can be vigorously pursued. The projects to be terminated are the heavy-media testing of various coals, the study of effect of size on ash content of anthracite, washability studies on the various minable anthracite seams, and the construction of a wire-saw for use in mining steeply pitching anthracite seams.

*Plan of work.*—The funds for this subactivity will be used at Bureau laboratories, principally the Anthracite Research Center, and mines of cooperating

companies for research to be conducted independently by Bureau personnel, and in collaboration with personnel of the cooperator. The program will be coordinated with those of other Government agencies, educational institutions, and private industries engaged in similar research. The following research activities are planned under the program:

In cooperation with a mining company, the hydraulic hoisting mechanism and the redesigned hydraulic mining machine (called the Jumbo) along with the necessary auxiliary equipment, will be installed and testing begun in a new mine containing several million tons of minable anthracite. The purpose of the research will be to determine the technical and economic feasibility of using a fully integrated hydraulic mining system. The coal in this particular location cannot be economically mined by conventional methods because of the high underground transportation costs.

Testing of the Bureau's large diameter boring machine will continue in a mine of the cooperator to fully evaluate its potential in the development and productive mining of thin, steeply pitching beds.

Microfilming of maps of active and abandoned anthracite mines will continue following completion of this work in the northern field, available maps of mines in the other anthracite fields also will be filmed and filed at a depository.

Studies will continue in the low-ash anthracite pilot plant. Various flotation agents and media will be tested to determine their relative effectiveness in de-ashing the coal. The effect of particle size and various physical and chemical pretreatments will be explored.

The Bureau will again provide sampling of coal at the breakers to make available, to Government agencies and prospective buyers, analyses, and data on the quality of anthracite output from preparation plants throughout the anthracite-producing region.

Economic and statistical information on anthracite production will be collected and published as in the past.

PROCESSING AND UTILIZATION

The estimate for fiscal year 1965 is $400,000, a net decrease of $112,000. This decrease consists of a program decrease of $116,000 and an increase of $4,000 for increased pay costs. The decrease is part of an overall decrease in the anthracite program requiring termination of a number of projects by the end of fiscal year 1964. Projects to be stopped are: Study of electrical properties, study of fine coal properties, investigation of use of ultrasonics in the processing of anthracite, and research on irradiation of anthracite.

*Plan of work.*—Funds requested for processing and utilization research will be used at Bureau laboratories, principally the Anthracite Research Center, for independent and cooperative research conducted by Bureau personnel. The work will be coordinated with that of other Government agencies, educational institutions, and industry. The following research activities are planned under the program:

Research on anthracite surface properties will be directed toward determining practical areas of application for these properties, particularly in the field of anthracite utilization. Processes involving phenomena such as adsorption, displacement, and diffusion of gases or liquids will be given special consideration.

Hydrogasification research will be continued in an effort to develop competitive gaseous fuels through the reaction of anthracite with hydrogen in a fluidized bed reactor. Various catalysts will be considered and modern research tools and techniques evaluated for their effect in producing increased yields of methane. Alternatively, this system will be studied as a production unit for other hydrocarbons.

Following evaluation of the effectiveness of the methods previously investigated for removing deleterious materials from acid mine water, research will be concentrated on the development of the most promising methods. Special emphasis will be given to the possible utilization of regional resources as treatment materials because of the implicit advantage which will be afforded the regional economy if this can be achieved.

Subsequent to the successful calcination of a small quantity of anthracite briquets in a laboratory-size Dwight-Lloyd traveling grate machine, a sufficient tonnage of low-bulk-density briquets will be heat treated in this type of unit to permit further pilot-plant testing of the formed anthracite in the Bureau's experimental blast furnace at Bruceton, Pa. At the conclusion of this work, a cooperative arrangement will be considered for testing the briquets in a commercial blast furnace.

Economic and statistical surveys will be made on the marketing, distribution, and utilization of anthracite. Additional studies will include special investigations of world production, export trade possibilities, and other aspects of world trade in coal which might affect the domestic industry.

DRAINAGE CONTROL

The estimate for this subactivity for fiscal year 1965 is $105,000, a net decrease of $12,000. The decrease consists of a program decrease of $13,000 and an increase of $1,000 for increased pay costs. The decrease is part of the overall decrease in the anthracite program.

*Plan of work.*—The purposes of this subactivity were expanded by the 87th Congress which by the act of October 15, 1962 (Public Law 87-818, 76 Stat. 934) amended the act of July 15, 1955 (Public Law 162, 84th Congress, 69 Stat. 352, 30 U.S.C., 571-576). The act of July 15, 1955, authorized the Secretary of the Interior to contribute not more than $8,500,000 to the Commonwealth of Pennsylvania on a matching fund basis in establishing a joint program for the control and drainage of water, which if not controlled or drained, would cause the flooding of anthracite formations. The act of October 15, 1962, expanded the purposes to include the sealing of abandoned coal mines and the filling of voids in abandoned coal mines where such work is in the interest of public health and safety.

The subactivity comprises the evaluation, engineering, and inspection work necessary to carry out the Federal Government's obligations in the expanded joint program. Conservation projects, as in the past, will be designed to prevent inundation of active mine workings and will include pump installations to control the level of water pools in abandoned mines and surface drainage works to prevent seepage into underlying mine workings. Projects for health and safety will be designed to prevent surface subsidences through filling underground voids and to fill or slope abandoned strip pits where serious public health and safety hazards exist to the extent of minimizing such hazards.

*Petroleum, natural gas, and oil shale*

| Subactivity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| (*a*) Extraction research | $1,549,423 | $1,602,000 | $1,652,000 | +$50,000 | +$50,000 | ---------- |
| (*b*) Processing and utilization research | 671,567 | 795,000 | 820,000 | +25,000 | +25,000 | ---------- |
| (*c*) Resources investigations | 368,200 | 557,000 | 574,000 | +17,000 | +17,000 | ---------- |
| (*d*) Oil shale research | 877,856 | 908,000 | 1,136,000 | +228,000 | +28,000 | +$200,000 |
| Total | 3,467,046 | 3,862,000 | 4,182,000 | +320,000 | +120,000 | +200,000 |

EXTRACTION RESEARCH

The estimate for this subactivity for fiscal year 1965 is $1,652,000, an increase of $50,000 over 1964, all of which is for increased pay costs.

*Plan of work.*—The funds requested under this program will be used for research by Bureau personnel at laboratories, in oil and gas fields, and at storage facilities directed primarily toward the conservation of liquid and gaseous fuels. Industry organizations, such as the American Gas Association, the Pennsylvania Grade Crude Oil Association, the Independent Petroleum Association of America, the North Texas Oil & Gas Association, the Kansas Independent Oil & Gas Association, various States where oil and gas are produced, and the Atomic Energy Commission all are supporting the Bureau research either technically or financially, or both. The objectives of this program are to develop technical data that will result in improvements in primary and secondary recovery and in more reliable methods of locating, producing, and evaluating petroleum reserves. The principal program elements under this subactivity are presented in the following paragraphs:

*Petroleum and natural gas reservoir performance and related production problems in California.*—Laboratory and computer research will be conducted on appraisals of oil-recovery mechanisms and performance, other laboratory research will be designed to measure recovery of natural gas by water drive, and studies will be made of well-completion practices. A computer program will be devised to indi-

cate the most profitable time for initiating waterfloods and a study will be made of sea water as an injection medium in waterflood operations.

*Properties and performance of petroleum, natural gas, and reservoir rocks in Rocky Mountain oil and gas fields.*—Research will be conducted to evaluate the productive potential of the major oil-producing formations in the region, to determine the best methods of well completion, to study the response of reservoir rock to waters of various chemical composition which are available for water injection, to determine physical properties and composition of petroleum reservoir fluids in the Rocky Mountain area, and to assess the possible use of a local high-nitrogen content natural gas as a pressure-maintenance fluid.

*Research in the production and storage of petroleum and natural gas in the mid-continent area.*—The program of research to be conducted includes field and laboratory experimentation on the properties and flow of reservoir fluids, increased emphasis on the development of methods of handling, detecting, and measuring radioactive tracers for various applications in petroleum-production research, evaluations of current stimulative methods of oil production and development of new methods, testing of theories on migration of oil and gas, mechanisms and energies involved in the displacement of crude oil from solid surfaces, methods for determining physical, chemical, and mineralogical properties of rock cores, and gas repressuring and recycling of semidepleted petroleum reservoirs.

*Field studies of engineering and related problems in oil production in Texas, Arkansas, and Louisiana.*—Field studies will be made to evaluate the effects of remedial measures for preventing channeling of injected waters in waterflood operations of cooperating oil operators in north Texas. An engineering analysis will be initiated on the application of modern techniques in oil recovery from gas-cap oil reservoirs.

*Susceptibility of Appalachian oilfields to newer production techniques.*—Crude paraffin wax samples will be analyzed and the effects of acoustic energy on such waxes will be studied. Laboratory experiments will determine the effects of vibrational, magnetic, and electrical energy on fluid flow and oil recoveries. Field investigations of thermal recovery projects will be continued. Evaluations of depleted oil reservoirs will be made to determine if newer recovery techniques are applicable. Radiotracer tests will be continued to improve the technique and to determine the efficiency of injection projects. Final reports on the studies of vertical flow of oil and gas in small-diameter tubing will be published.

### PROCESSING AND UTILIZATION RESEARCH

The estimate for this subactivity for fiscal year 1965 is $820,000, an increase of $25,000 over 1964, all of which is for increased pay costs.

*Plan of work.*—The funds requested will be used for research to be conducted by Bureau personnel at research centers. The work will be coordinated with work of other Government agencies and private industries concerned with processing and use of petroleum and natural gas. Projects will be conducted in cooperation with State agencies, trade associations such as the National Petroleum Refiners Association and the American Petroleum Institute, and Federal agencies such as the Atomic Energy Commission, Public Health Service, Navy Bureau of Ships, and other defense agencies. The objective of the work is to provide information required for efficient development of new and improved products and processes in order that maximum benefit be derived from the Nation's supply of crude oil and from refined petroleum products. The principal program elements under this subactivity are described in the following paragraphs:

*Sulfur and nitrogen compounds in petroleum.*—Research studies will be directed to isolation and identification of sulfur and nitrogen compounds in petroleum. Chemical and instrumental methods of analysis will be developed and applied and pure standard samples of sulfur and nitrogen compounds will be prepared and their physical and thermodynamic properties determined.

*Characteristics of crude oils and asphalts.*—Routine determinations will be made of properties of about 270 crude oils and their fractions and of specially prepared asphalts. Methods will be developed for more accurate and rapid methods of analysis and for correlating properties of oils and asphalts.

*Fuel stability in storage, phenomena of combustion of petroleum fuels, thermodynamic properties of hydrocarbons and related organic materials, and chemical-physical research on oilfield fluids.*—The thermodynamic research program will include low-temperature calorimetry, combustion, and vapor-flow calorimetry studies of nitrogen, sulfur, and fluorine compounds. Theoretical work will be done on the development of improved intermolecular potential energy relations

for gaseous systems, studies will be made of molecular structure and energetics, and chemical thermodynamic properties will be calculated. Molecular spectroscopy studies will be continued. Combustion research will be done on reactions of automotive exhaust-gas components, composition of diesel exhausts, and effects of engine and combustion system parameters on exhaust emissions. Radioactive-tracer techniques will be applied to chemistry and to exhaust-gas studies. Fuel-storage-stability studies will be continued.

RESOURCES INVESTIGATIONS

The estimate for this subactivity for fiscal year 1965 is $574,000, an increase of $17,000 over 1964, all of which is for increased pay costs.

*Plan of work.*—The funds requested for resource investigations will be used to collect factual data required to provide a more complete picture of the availability, distribution, and utilization of the Nation's petroleum, natural gas, and oil shale resources. This work will be coordinated with that of other Government agencies, and certain investigations will be conducted in cooperation with State agencies. Continuation of the following activities is planned under the program:

Work on the study to determine the status of reserves of petroleum and natural gas and the future availability of these resources. Efforts will be directed toward the determination of reserves within different mineral resource areas and toward establishing an accurate breakdown of production into flowing and pumping primary production, pressure maintenance, and secondary recovery categories. In fiscal year 1965 the petroleum natural gas research program of the Bureau of Mines will provide for preliminary investigation of certain engineering problems inherent in the determination of reserves and the estimation of availability.

Preliminary economic-engineering surveys and studies of petroleum and natural gas activities that are required by other Government agencies, and are beneficial to the industry and to the general economy of pertinent areas.

Collection and publication of monthly statistics and analysis of the U.S. petroleum producing and refining industries, of quarterly statistics and analysis of the free-world petroleum, refining and trade, and annual statistics on and analysis of U.S. natural-gas production and distribution.

Preparation of forecasts of petroleum supply and demand for use of State regulatory agencies, the Oil Import Administration, and the industry.

Correlation of data available from the various State agencies with those collected by the Bureau.

Essentially, the program of work in resource investigations during fiscal year 1965 will be extension of the fiscal year 1964 program. Continuity of work procedures is essential in resource activities; otherwise the usefulness of the data for making comparisons and for determining trends will be lost.

OIL SHALE RESEARCH

The estimate for this subactivity for fiscal year 1965 is $1,136,000, an increase of $228,000 over 1964. The increase includes $28,000 for increased salary costs and $200,000 for research on in-situ retorting of oil shale.

*Need for increase.*—The probable commercial production of oil from the Athabascan tar sands of Canada and the present intense interest of U.S. industry in the possible commercial production of oil from western oil shales and domestic tar sand deposits by both conventional and in-situ operations warrant a study by the Government of the basic technology associated with in-situ production of oil from oil shale and tar sands, and a study that will demonstrate the possible resource recoveries that can be anticipated from such ventures. Additionally, this study will provide an answer to the possible utilization of all our oil-shale resources in the future.

About 60 percent of the estimated cost of producing shale oil is attributable to mining, transporting, and preparing the shale for retorting. Elimination of these steps by less conventional means, such as in-situ retorting, should result in substantial cost savings, as well as elimination of transportation and spent-shale disposal problems. An additional benefit will be that Government will maintain technological competence in the possibilities for oil-share utilization.

*Plan of work.*—The funds requested for this subactivity will be used for research and development to be conducted by Bureau personnel at the Laramie Petroleum Research Center, Laramie, Wyo., for maintenance of the Government research facilities at Anvil Points, Colo., and at project sites in Utah, Colorado, and Wyoming.

Information will be developed at Laramie on the characteristics of the Nation's oil-shale resources, with particular emphasis on the vast deposits of Colorado, Wyoming, and Utah. In addition, research will include work to provide the knowledge of special problems involved in developing effective means of oil-shale retorting technology and in converting the resulting shale oil into usable products. The following activities are included in the program:

Development of methods and techniques for characterizing oil shales which includes: (1) Thermal degradation behavior of oil shales and their organic concentrates, mineral constitutents, and admixtures; (2) quantitative determination of the mineral constituents; (3) direct oxygen determination by the isotope-dilution technique; and (4) behavior of retort gases and mists in various environments.

Product distribution and other properties of hydrogenated shale oil are studied to obtain information that will permit selection of optimum boiling ranges for subsequent refining to produce regular- and high-octane gasoline as well as other distillate fuel products and optimum fractionation temperatures for recycle hydrogenation to reduce nitrogen content.

Studies of oil-shale deposits by analyzing samples to determine oil yields, determining lithologic characteristics of deposits and using electric logs and other stratigraphic data for correlating characteristics of the deposits.

Studies of physical and chemical properties of kerogen which include quantitative determinations of the specialized chemical groups and continued efforts to develop methods of preparing unaltered kerogen concentrate.

Evaluation of crude shale oil as a source of chemical products with a goal of determining quantitatively what chemical materials are naturally present, methods of separating the chemicals from the oil, and defining each oil in terms of technical and economic potential as a source of chemical material as well as fuel.

For the new project on possible recovery of shale oil by in-situ retorting, work in fiscal year 1965 will include careful selection of a proper site on the public domain for the experiments, the obtaining of clearances for the use of the site from proper official agencies, and a partial assessment of the quantity, quality, and extent of the selected oil shale deposit through analysis of geological factors and analysis of oil-shale cores obtained from drilled core holes. This work will be conducted in cooperation with the Geological Survey and other interested agencies.

*Minerals and metals*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| (a) Extraction research | $2,032,830 | $2,067,000 | $2,117,000 | +$50,000 | +$50,000 | ---------- |
| (b) Processing research | 7,443,743 | 7,674,000 | 7,851,000 | +177,000 | +177,000 | ---------- |
| (c) Utilization research | 2,579,900 | 2,657,000 | 2,721,000 | +64,000 | +64,000 | ---------- |
| (d) Resources investigations | 2,890,803 | 3,512,000 | 3,597,000 | +85,000 | +85,000 | ---------- |
| (e) Employee compensation payments | 2,000 | 7,000 | 12,000 | +5,000 | ---------- | +$5,000 |
| Total | 14,949,276 | 15,917,000 | 16,298,000 | +381,000 | +376,000 | +5,000 |

EXTRACTION RESEARCH

The estimate of $2,117,000 is an increase of $50,000 above 1964, which is for increased pay costs.

*Plan of work.*—Research will be conducted in laboratories in the States of Maryland, Minnesota, Colorado, Nevada, Pennsylvania, and Washington; however, the work at these sites will constitute only a part of the effort. The major effort will be in operating mines throughout the United States in cooperation with mining companies, utilizing the mines as open pit and underground laboratories. This active, cooperative research will be at mines in Idaho, Montana, Wyoming, Utah, Nevada, Arizona, New Mexico, Colorado, Missouri, Michigan, Pennsylvania, and possibly other States where operating mines can be utilized as research sites. The capability in rock mechanics will be maintained and available for

limited service studies for units of the Department of Defense and Atomic Energy Commission. The principal program elements for this subactivity are as follows:

*Ground stabilization and control.*—The artificial support program is an important segment of the ground stabilization and control research. Hydraulic backfill is one method of support that already has proven to be useful in deep mines, and structural analysis studies of hydraulic stopefill started in fiscal year 1963 and continued in fiscal year 1964 will be continued in fiscal year 1965. Research to date has succeeded in developing a method of classifying the fill. Proceeding from the experimental data developed in fiscal years 1963–64, the study in fiscal year 1965 will consist of research in methods of compaction and the effect of chemically active and inert additives on the fill.

Research on development of mechanical fragmentation methods for mining thick tabular mineral deposits is expected to be completed in fiscal year 1964, and the full effort in this program will be redirected toward studies in distributed load supports. The improved supports will be designed to carry the load evenly at all points. Studies have been underway on this technique on a limited basis concerned primarily with the use of metal as a structural unit. Mine tests will be made employing sectionalized concrete and other materials. The rockbolt program has been one of the most successful applied research programs undertaken in the past 3 years. The direction of the research will be changed toward determining the mechanics of anchorage of rockbolts, with the objective of improving anchorage and rockbolting materials and developing better rockbolting procedures. Laboratory and field tests on a support prop developed by the Bureau will be completed in fiscal year 1964. The crop has specific uses that are applicable only under certain structural conditions.

Studies of block caving mines will be continued. Instrumentation of new test sites in operating block caving mines will be undertaken for determining the stress patterns in rocks surrounding mine openings. The longwall mining project concerned with uranium mining that has been in progress since fiscal year 1962 will be completed in fiscal year 1965; the underground stress determinations under various conditions of prop loading will be completed and a publication issued on the research. Longwall mining research is discussed further under the bituminous coal activity, extraction subactivity. Stress and deformation studies in potash completed in fiscal years 1963–64 will be evaluated in fiscal year 1965 determine design factors in preparation for a full-scale field test in fiscal year 1966 to prove or refute the design hypotheses. Recognizing the enormous amount of valuable mineral lost in current room-and-pillar methods of mining, the Bureau has had research underway for 3 years on the determination of stress changes in pillars during pillar recovery operations. This research will be continued in fiscal year 1965. Design factors will be formulated for improved pillar recovery and an experimental test section in one or more mines is planned. The studies will include strata control in semiplastic rock, design of pillars in a salt mine, and the development of techniques and instrumentation measuring pressure in a viscoelastic and/or plastic medium, such as salt, potash, and trona. A pioneer study on the mechanics of floor heave in mines will be started to quantitatively determine cause-and-effect criteria and remedial measures.

Open-pit methods are accounting for an increasingly larger share of total mine production, particularly of such mineral raw materials as copper, iron, and certain nonmetallics. As open-pit mines increase in number, size and depth, precision in determining the maximum safe angle for the pit walls assumes even greater importance. In large pits an increase of only a degree or two in the overall slope angle can make millions of tons of additional ore economically available. The research on open-pit slope design will include completion of the fieldwork of a case history study of natural and manmade rock slopes to determine the significance of certain types of geologic features on slope stability; investigations involving the analysis of rock structures and measurement of in-situ stresses in active open-pit mines; and research to develop devices for automatic warning of imminent slope failure.

Physics of earth-structure studies will be directed toward three-dimensional photoelastic studies with the objective of determining the effect of major geological features on the stresses applied to laboratory specimens, and a statistical fracture study in an operating mine to determine the effect of the fractures on pressure distributions. Concurrently with these studies, work will continue on property testing and successive scaling up of the models in the laboratory with the research climaxing in a full-scale field test at an operating property in fiscal year 1966. The information gained from each test on continuously larger specimens will be correlated so that meaningful model testing can be undertaken in

the laboratory with assurance and accurate predictions made as to the action of the rock in place. Studies in the deep lead-zinc mines of the Coeur d'Alene mining district will be a part of the physics of earth-structures research. The importance of this study is emphasized when it is realized that some of these mines are approaching 7,000 feet in depth and are the major element in the economy of the area; and continuously advancing mining technology is urgently needed to keep these mines in operation, and the operating companies in the district have offered their wholehearted cooperation in the effort. The study in the cause and effect of rock bursts will continue in fiscal year 1965 with no change in emphasis from fiscal year 1964.

*Rock disintegration.*—Rock disintegration research will be continued in fiscal year 1965 with increased emphasis in some areas and reduced effort in others. Continuous mechanical mining research with the Bureau developed phosphate planer will be concluded in fiscal year 1964. Studies of the effect of surface active agents in drilling will be continued with emphasis on the use of organic reagents.

Empirical research to develop workability standards (drillability indexes) to gage rates and effectiveness of various drilling methods will be continued with completion of work on rotary drilling and initiation of investigations of percussive drilling.

Basic drilling research will include studies of stress distributions in rock under a drill bit, together with fracture and deformation phenomena using the techniques of three-dimensional photoelastic stress analysis as well as more conventional static and dynamic stress analysis methods.

Hydraulic rock breaking research will be continued with emphasis on fragmentation under a static head involving such mechanisms as cavitation and electrospark. Research by induced thermal stress using both conventional and dielectric heating methods will be at essentially the same rate as fiscal year 1964. Studies of underground blasting techniques will be started. Previously Bureau blasting research effort has been applied to the problems of surface mine and quarry blasting; however, starting with fiscal year 1965 the studies will include underground blasting. Research to perfect model techniques for study of blasting problems and to determine the limitations of the methods will be continued as will the basic studies of the mechanisms by which rock is broken by explosives. The fundamental blasting research to study the basic physical processes involved in cylindrical explosive charges, and the rock breaking abilities of certain types of explosives will be continued. Presplitting studies as a means of control of the slope of a cut blasted in rock and reducing the vibration from blasting will include a study of presplitting underground. These studies are related to the study on vibrations from blasting.

*Mining engineering.*—This program element constitutes the development of new methods and the adapting of mathematical and statistical techniques to problems in mining engineering. Within this broad concept, research is being conducted on problems in sampling methods, mine systems, analysis and the development of mathematical tools for use in ore search. Accomplishments in this program are immediately applicable to industry problems today, and it is of great value to the mining industry because of the short-range nature of the research. Mineral sampling research will continue at the same rate as in fiscal year 1964. Mine systems analysis studies will be expanded primarily to define variables that contribute to optimal solution of problems encountered in mine production and operations. Defining these variables will permit better management decisions in making an economic and/or valuation analysis of a mineral deposit. Development of mathematical tools for ore search will continue at a moderately reduced rate in fiscal year 1965. The research is long-range in nature, but interim results from the study will have immediate application in ore search techniques.

*Environmental control.*—Basic studies on rock permeability and applied research to develop improved methods preventing or reducing water inflow in mines by sealing, solidification, and cementation will be continued. This research will be coordinated with research on the acid mine water problem discussed under the bituminous coal activity, extraction subactivity.

### PROCESSING RESEARCH

The estimate for this subactivity for fiscal year 1965 is $7,851,000, an increase of $177,000 over 1964, all of which is for increase pay costs.

*Plan of work.*—The funds requested will be used for research conducted by Bureau personnel at Bureau research centers and laboratories. The work will be coordinated with research of other Government agencies and private industry,

and some projects will be conducted in cooperation with and partly financed by other Federal Government agencies, States, or private companies. The principal program elements for this subactivity are presented in the following paragraphs:

*Mineral process studies.*—Research will be intensified to develop more efficient methods for physically treating the plentiful low grade and currently uneconomic domestic minerals deposits and for preparing usable mineral products for further processing. Studies will embrace both basic and applied research in gravity, magnetic, and flotation concentration. In fundamental flotation studies, efforts will be aimed at acquiring needed data on the complex chemical reactions involved in conditioning, collecting, and floating mineral particles. Other studies will emphasize the application of the basic information to develop improved procedures for concentrating beryllium, fluorspar, and iron minerals and work will be initiated to devise flotation techniques for removing deleterious contaminants in phosphate rock. Greater efforts will be devoted to further development of continuous heavy liquid process for separating minerals with small differences in specific gravity and of small particle size. Work will be speeded up on measuring the magnetic properties of minerals and improving magnetic and electrostatic processes for separating minerals. The Bureau-developed process for microgrinding clay will be evaluated for the fine grinding of other materials and promising leads for dewatering phosphate waste slimes will be studied further.

Experimental process development will be emphasized to devise integrated procedures for treating mineral raw materials and producing commercial quality products. Studies will be continued on extraction and separation of hafnium and zirconium and expanded on the simultaneous grinding and magnetic roasting of iron ores, selective sulfatization of manganese and reduction of iron in manganiferous ores, and on the reduction roasting of manganiferous materials to enable manganese recovery by leaching and iron recovery by magnetic methods.

Evaluation of processes for extracting aluminum, magnesium, and manganese from various materials, including low-grade domestic resources, will be continued to obtain sufficient data to evaluate the relative merits and costs of the processes as well as delineate areas requiring further study. In the theoretical study of the iron blast furnace process, refinements will be made in the thermochemical model, developed by previous studies, and the work will be redirected to simulate other metallurgical processes.

*Chemical metallurgy.*—The largest single effort in chemical metallurgy research will be the comprehensive study of the iron blast furnace process conducted in cooperation with Blast Furnace Research, Inc., representing the major domestic iron and steel producers, at the Bureau's experimental iron blast furnace. Advancements will be sought in the Bureau-developed techniques for increasing smelting efficiency and production rates through the use of much higher than conventional top pressures in the furnace, coupled with supplementary fuel and oxygen injection at the tuyères and higher blast temperatures and wind rates. Other studies will be directed to developing improved methods for smelting complex lead-zinc ores and concentrates, and high-iron aluminum raw materials by electric furnace procedures, and for recovering copper from refractory ores by the Bureau-developed segregation process.

Emphasis will be continued on the extraction of beryllium, columbium, tantalum, molybdenum, tungsten, and titanium from ores, concentrates, and rare metal scrap by a promising process involving chlorination, purification of the metal chlorides, and reduction of the cholrides to metals. Simiarly, recovery of manganese, gallium, and germanium by volatization-reduction methods will also receive attention.

Continued efforts will be applied to the separation of base metal constituents in secondary materials, purification of molten metals, and reduction of gaseous metallic compounds by vacuum distillation, carrier gas distillation, flux refining, and formation of intermetallic compounds. In related research on the preparation of high-purity metals, work will be initiated on the use of pure organometallic compounds as source materials.

Increased emphasis will be placed on the reduction roasting of iron oxide minerals to yield lower oxides and metal. Efforts will be devoted to preparing stronger iron oxide pellets needed in blast furnace feed, establishing optimum conditions for prereducing iron oxide pellets as a new improved blast furnace feed, evaluating prereduced pellets as a feed material in steelmaking, and to the use of prereduced pellets, iron and steel scrap, and molten pig iron in the oxygen converter steelmaking process.

Research on recovering metals from ores and concentrates by solution methods will include a variety of selected processes. Studies on the Bureau-developed

fusion-acid leaching procedure for recovering alumina from anorthosite and other abundant domestic silicate minerals will be expanded to include techniques for accelerating the crystallization and precipitation of alumina from solution. New solvents will be sought for extracting rare earth elements from bastnasite with subsequent isolation of the individual elements by solvent extraction, iron exchange, and related chemical processing techniques.

Fundamental studies will be continued on the use of bacteria to extract metals from submarginal ores and to selectively separate metals from solutions, and to determine the factors that affect the separation and recovery of metals from solution by cementation processes to extend the efficiency of this widely used technique. Both pressure leaching and roasting leaching will be examined as possible methods for recovering phosphorus and vanadium from currently wasted ferrophosphorus, a byproduct of elemented phosphorus production from western phosphate ores.

Substantial effort will be directed toward development of better methods and reagents to recover rubidium and cesium from ores and concentrates; separation and recovery of molybdenite from copper concentrates; and for preparing pure beryllium salts from low-grade domestic beryllium ores and concentrates. Research will be expanded on the development of promising, potentially inexpensive chemical compounds for extracting common metals such as copper, nickel, or zinc by solvent extraction methods and continued on recovery of valuable constituents in saline water bitterns.

*Electro- and thermochemistry research.*—Emphasis will be given to the extraction, refining, and recovery of high-purity metals from ores, concentrates, crude metals, and alloys through electrolysis of fused salt or aqueous media. Research will be carried out to refine primary tungsten metal and to recover tungsten from scrap materials. Parallel research will be conducted on the electrochemical preparation of refined vanadium. Investigations will be continued to develop molten-alloy anode systems suitable for electrorefining of uranium, vanadium, and manganese. Other fused salt electrochemical reduction studies will include the electrowinning of beryllium and titanium from their respective chemical compounds; extraction of chromium, tungsten, and molybdenum from domestic chromite, sheelite, and molybdenite concentrates, respectively; recovery of columbium from its oxides, halides, or carbide compounds; and the codeposition of thorium metal with various alloying metals. Electrowinning of various high-purity rare earth metals will continue to be investigated as will fused-salt electrorefining of hafnium and yttrium. A study of suitable molten salt electrolytic baths for separation and purification of nickel and cobalt will be pursued with efforts directed toward development of a continuous process.

The effects of ultrasonics on the electrodeposition of metals and alloys will be studied and the properties of the deposits formed will be determined. Efforts will be extended to improve processes incorporating the separation of cobalt and nickel by solvent extraction and subsequent electrodeposition separately of pure nickel and cobalt from impure metals, metal compounds, ferroalloys, and alloy scrap.

Fundamental electrochemical reaction mechanisms of the commercial Hall alumina cell will be investigated and means of preparing high-purity zinc through electrolysis of zinc amalgam will be carried out. Chemical, electrical, and mechanical properties of manganese, titanium, and chromium phosphides prepared by fused salt electrolyses will be studied and evaluated.

Research in thermochemistry will be expanded to derive significant information on the fundamental properties of elements and compounds needed for improving existing and developing new metallurgical processes. Thermodynamics measurements involving low-temperature heat capacity, high-temperature enthalpy, and other related properties will be made on selected metal and compounds.

Vapor pressure studies will be accelerated to obtain precise measurements of metal halide systems of cadmium, lead, tin, and zinc and of other various metals for use in devising volatilization techniques for extracting, purifying, and separating metals from their source materials. Research will be continued to learn the cause of fuming in oxygen steelmaking and to devise ways of eliminating fume emission and thus prevent a hazardous air-pollution problem.

Reaction rate studies will be continued to acquire scientific data on reduction of iron oxides to metal at various temperatures and in selected atmospheres for use in raising the efficiency of iron smelting; on the oxidation of molten lead and other metals to evaluate selective oxidation as a purification process; to collect and correlate data on properties of catalysts and assess their significance in chemical reactions; and to ascertain definitive information on the nature of reactions

between metals and compounds in molten electrolytes to make possible further improvement in electrometallurgy processing methods.

Other continuing fundamental research will involve the cobalt 60 cell to study the effects of gamma radiation on inorganic liquid, gaseous, and solid state reactions under a wide variety of physical-chemical conditions, and petrographic and X-ray diffraction studies on iron minerals to determine the influence of crystal structure, composition, and other properties on behavior of the minerals during metallurgical processing.

*Analytical research.*—In seeking to improve the speed and accuracy of all analytical determinations and to develop new sensitive techniques for the precise measurement of minute impurities in metallurgical research products, selected chemical and instrumental methods will receive increased attention. A substantial effort will be devoted to developing and adapting new analytical instruments such as the neutron activation generator for analyzing trace elements in minerals, metals, and nonmetals. Increased effort will also be made to extend the usefulness of the X-ray spectrograph electron probe for the identification of microphases in alloys.

Research using radioisotope techniques will be continued and phases will be intensified to facilitate the development of metallurgical separations and to check analytical data obtained by classical procedures. Isotopic dilution analysis studies will include procedures for measuring impurities and characterizing the research products of physical metallurgy. Research on gas chromatography methods will be continued to develop ways of detecting and quantitatively determining gases such as hydrogen, carbon dioxide, nitrogen, and chlorine. The principles will also be used in adapting the method to vacuum fusion determination of interstitial elements in metals and to analyzing samples of gases resulting from arc melting and halogenation reactions.

### UTILIZATION RESEARCH

The estimate for this subactivity for fiscal year 1965 is $2,721,000, an increase of $64,000 over 1964, all of which is for increased pay costs.

*Plan of work.*—The funds requested will be used for research conducted by Bureau personnel at Bureau research centers and laboratories. The work will be coordinated with research of other Federal and State Government agencies and private industry and some projects will be conducted in cooperation with and partly financed by other Federal Government agencies, States, or private companies. The principal program elements for this subactivity are described in the following paragraphs:

*Physical metallurgy and basic research.*—Melting and casting studies will be expanded on beryllium and tungsten metals and alloys in an effort to develop improved procedures for forming those difficult-to-shape materials, and related research on forming will be continued on the use of high-energy techniques for forming metals and alloys into desired shapes. Studies on chemical, galvanic, and high-temperature corrosion properties of metals and alloys will receive increased emphasis to acquire necessary information to permit discreet selection of those metals and alloys which would be suitable for specific corrosive enivronments.

In alloy research, a large effort will continue to be devoted to development of tungsten, columbium, and tantalum alloys and ultra-high-strength steels to utilize their high-temperature and other desirable properties. Work will be expanded on zinc alloys to improve their strength, creep resistance, recrystallization during fabrication, and other properties and determining the effects of aluminum, copper, and titanium additions on the properties of zinc alloy. Attempts will be made to further improve the vibration-damping properties of the Bureau-developed manganese-copper alloys and selected magnesium alloys. The properties of high-purity electrorefined tungsten, molybdenum, vanadium, rare earths, and other metals will be studied and the effects of oxygen, carbon, nitrogen, and other contaminants on those properties will be determined.

Research will be accelerated to devise procedures for preparing materials with improved properties which will be suitable for elevated temperature and strength uses. These studies will comprise ways of applying thermal and corrosion protective coatings of platinum-group metals, refractory metals, and composite mixtures of metals and compounds on other structurally desirably reactive metals and materials; and preparing heterogeneous metal-nonmetal compacts by coating nonmetallic particles of oxides, nitrides, and carbides with tungsten or molybdenum, pressing and sintering the coated particles, and evaluating the materials for high-temperature properties.

In the development of refractories with superior qualities needed for high-temperature and high-strength uses, research will be intensified to acquire, correlate, and analyze data on the thermal, mechanical, crystallographic, and electrical properties of rare-earth oxides and other promising compounds and materials.

Acquisition and correlation of fundamental data on properties of abrasives will be extended to include information on the microstructure and crystallographic characteristics of synthetic aluminum oxide and silicon carbide and to evaluate the effects of those factors on the strength and abrasive action of the materials. Continuing fundamental research will be aimed at developing alloys and methods to increase the service temperature and strength of solders; developing equipment and methods for using plasma-cathode discharges; obtaining fundamental data on the emission of electrons from molten cathodes in arc melting; and to develop and evaluate efficient thermoelectric materials.

*Synthetic minerals and materials.*—Research to develop methods for continuous forming of ceramic materials with close dimensional tolerance will be continued to obtain fundamental data on the effects of various types of stresses on the properties of single and polycrystalline ceramic materials. The information will be used to devise techniques for preparing ductile ceramics that would be more resistant to heat, deformation, or thermal shock. Related studies on the joining of refractory materials will be intensified to develop welding procedures for fabricating complex ceramic shapes for use in the chemical, electronic, and aircraft industries which are difficult or impossible to form by conventional methods. Work will continue on the development of thin, dense, shock resistant, stabilized ceramic membranes with sufficiently high ionic mobility for satisfactory use in electric energy fuel cells.

Greater efforts will be devoted to determining the cause of early failure of clay retorts used in zinc extraction. The problem which will be attacked through a study of raw materials and of mixing, aging, forming, and use procedures of the retorts, has existed for several years, and is becoming more acute with the increasing competition of other materials for a share of the zinc market. Studies will be continued on the preparation of hard materials and evaluating their high-temperature strength, thermal shock resistance, and other properties with the objective of developing boride refractories having outstanding properties.

The preparation and evaluation of synthetic asbestiform and micaceous materials for chemical, electronic, and elevated temperature uses will receive continued emphasis and efforts will be accelerated on preparing a comprehensive publication on synthetic mica.

### RESOURCES INVESTIGATIONS

The estimate for this subactivity for fiscal year 1965 is $3,597,000, an increase of $85,000 above 1964, all of which is for increased pay costs.

*Plan of work.*—The Bureau of Mines program of resources investigations is a long-range continuing factfinding and research-oriented activity designed specifically to (1) provide the Federal Government with necessary background data upon which to base policy decisions affecting the mineral industry; (2) promote intelligent and effective utilization of the Nation's mineral resources through collection and analysis of economic and technical data on production, distribution, consumption and use minerals, and engineering and examination and scientific and economic interpretation; (3) provide the foundation of basic knowledge essential to research advancements in all branches of mineral technology and which will form a basis for intelligent programing of Bureau technologic research; (4) complete and keep current adequate appraisals of the Nation's available mineral resources; and (5) provide the general public with a clearer understanding of the economics of the mineral industries.

Current and careful planning to assure the orderly development of this country's mineral resources to meet tomorrow's needs is of growing importance. In the past 30 years the United States has consumed more minerals than all the peoples of the world have previously used. That most current demands for mineral raw materials are being met without difficulty is primarily due not to new discoveries, but rather to the technological advances achieved since World War II. Even so, domestic production is supplemented increasingly by imports. With national requirements rapidly expanding and with shifting emphasis among commodities, the Nation faces a future of critical shortages unless it can continue to add to its fund of knowledge of all factors that permit the development, mining, and processing for utilization of new sources of these essential raw materials.

Changes in economic conditions and changes in technology often cause serious national and sectional economic dislocations. Historically, solutions of problems caused by such circumstances are sought after serious dislocation has resulted. Insofar as the problems are the result of economic and technologic change in the mineral industry, a part of the minerals and metals resource programs will be devoted to continuous studies on a national basis and in potentially critical areas in order to anticipate problems and permit initiation of programs by industry and Government to solve them in advance.

Through its resources investigations program, the Bureau of Mines is seeking the knowledge essential for the intelligence and wise development and use of the Nation's mineral heritage. A major element in this sought-for store of new knowledge relates largely to the marginal and submarginal mineral deposits, the large and ever lower grade or poorer quality ones, from which the bulk of future supplies inevitably must be obtained. Other elements relate to the current history, so to speak, of the mineral industries, both economic and technologic. From such facts and trends, properly interpreted, forecasts can be made to guide industry and Government in the shaping of their mineral policies.

In carrying out the resource program, comprehensive and authoritative industry information is obtained through regular canvasses, special technical and economic studies, mine and plant visits, and systematic surveillance and verification of such news sources as technical and trade publications and Government reports. Regular dissemination of mineral information for particular States or industries is achieved through Minerals Yearbook, monthly, quarterly, and annual Mineral Industry Surveys, Mineral Trade Notes and Annual State Reports. Teams of engineering, technical, economic, and statistical experts work together to prepare publishable reports on special projects. These staffs also work closely together in assembling information requested by the Congress, the Department, and other Government agencies. The Bureau's various resource organization units cooperate with State and Federal agencies such as the State geologists, the Office of Emergency Planning, river basin committees, and State Department, to provide mineral resource and industry material for inclusion in State, Federal, or international reports of broad scope.

EMPLOYEE COMPENSATION PAYMENTS

The estimate for this subactivity for fiscal year 1965 is $12,000, an increase of $5,000 over 1964. The increase will provide funds to reimburse the employees' compensation fund for payments made on account of the injury or death of employees under the jurisdiction of this Bureau as required in section 209 of Public Law 86–767.

*Oceanographic research*

| Subactivity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| Oceanographic research | $50,000 | $53,000 | $182,000 | +$129,000 | +$3,000 | +$126,000 |

OCEANOGRAPHIC RESEARCH

The estimate for this activity for fiscal year 1965 is $182,000, an increase of $129,000 over 1964. The increase includes $126,000 for increased emphasis on marine mining research and $3,000 for increased pay costs.

*Need for increase.*—In response to industry's mounting demands and increased public interest, and in accordance with the Bureau's responsibilities for conservation and development of the Nation's mineral resources, on wet or dry land, the Bureau will step up its emphasis on marine mining research studies in fiscal year 1965. The increase is requested to provide funds for new studies by Bureau researchers to determine the economic significance, methods of recovery, and utilization of marine mineral deposits. The ultimate objective of these investigations is the establishment of a stable, self-supporting marine mining industry and delineation of mineral reserves for future use when required by the mineral economy of the United States.

*Plan of work.*—Bureau engineers and scientists will cooperate with researchers in other Government agencies, institutes, and industry in the collection and re-

view of oceanographic data to ascertain geographic areas of potential interest as a source of economic marine mineral deposits. Samples of ocean-bottom deposits obtained from oceanographic surveys by other groups will be solicited and examined in the laboratory for industrially valuable minerals.

*Sea-floor mineral data collection.*—Random sampling and analysis of heavy metal sands in submerged beach deposits near Port Orford, Oreg., and near Grays Harbor, and the mouth of the Columbia River in Washington, will be undertaken by the staff to determine areas of heaviest concentration for subsequent mining studies. These shallow, near-shore occurrences are potential sources of platinum, titanium, chromium, iron, zirconium, and glauconite. The possibility of submerged beach deposits of heavy mineral sands along the Pacific Northwest coast was defined during fiscal year 1964 appraisals of known marine mineral data.

It is planned to do some initial sampling of phosphorite off the coast of California. Considerable information on the California phosphorites was developed by Bureau scientists in fiscal year 1964 through the cooperation and the Scripps Institute of the University of California and other west coast groups. Development of these phosphate deposits might support a California fertilizer industry. One private venture for the mining of sea-floor phosphorite failed recently because of the lack of basic information about the occurrence and how it might be recovered. Bureau research could have prevented this by providing basic reserve data, mining feasibility information, and utilization costs.

These preliminary familiarization surveys will be made from a leased, small work boat. Costs will be minimal as the investigations are cursory in nature and the minerals to be examined are inshore and in shallow waters where a small boat and simple equipment can be used advantageously for prefatory studies. Reports of field studies will be prepared for publication and distribution.

Sea-floor sampling devices will be procured and tested using the small work boat. From the testing of these sampling tools and instruments at inshore locations and in the protected waters of the bay, Bureau engineers will determine the need for and design new and more efficient marine mineral investigation equipment and methods for deep-sea work in subsequent fiscal years. This research is needed as present sampling tools required for use in marine mineral development are open to vast improvement. By using the leased, small craft for near-base testing, costs will be minimal.

The Bureau will act as consultants to the Navy, the AEC, and industry in the development of conceptual designs, engineering detail, and other features in the development of special purpose platforms, submersibles, and facilities for sea-floor drilling, and recovery operations. Numerous requests for such assistance were received in fiscal year 1964.

*Equipment planning studies.*—Mining under the ocean will present a new challenge. The Bureau of Mines must examine current mining and processing procedures to ascertain their adaptability to a marine environment, study the feasibility of entirely new concepts of recovery, and demonstrate the practicability of extracting mineral resources from the ocean.

The problem of mineral recovery from the oceans will vary greatly with the type of mineral to be mined, the extend and grade of the deposit, whether it is composed of unconsolidated sediments or hard rock, the distance from the underwater occurrence to land, the depth of water in which it lies, and other pertinent factors. A major part of any investigations on means of underwater mining must be an exhaustive research of marine or submarine craft, floating or fixed surface platforms, and underwater shelters from which mining and proecssing operations can be initiated and maintained.

The Bureau's research effort will delineate what modifications of existing mining and processing methods or development of new techniques are required to remove petroleum, coal, and mineral products from beneath the ocean floor.

The development of equipment and facilities composed of materials having a high resistance to salt water corrosion and to attack by the many organisms of the sea will be prime requisites for exploitation of the ocean's mineral resources. In this field the experience of Bureau metallurgists will be utilized.

*Appraisal of current marine mineral knowledge.*—Work will continue on the assembly, analysis, and evaluation of marine mineral information and samples from other Government agencies, institutes, universities, and industry. Scripps Institute, Oregon State University, and other well-known oceanographic groups have formally agreed to provide Bureau scientists with cuts of sea-floor samples and location data on any material which appears to hold promise for industrial

utilization. Information will be compiled in report form complete with nautical charting of mineral locations, material analyses, and estimated quantity of material present. These reports will offer recommendations for later field studies to determine minable reserves of specific occurrences, for mining method research, and processing investigations.

*Foreign mineral activities*

| Subactivity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| Foreign mineral activities | $411,694 | $521,000 | $546,000 | +$25,000 | +$25,000 | ---------- |

FOREIGN MINERAL ACTIVITIES

The estimate for this activity for fiscal year 1965 is $546,000, an increase of $25,000 over 1964, which is for increased pay costs.

*Plan of work.*—The funds requested will be used to support the Bureau's program of systematic collection, interpretation, and publication of foreign mineral data. Its objective is to provide current information and analytical appraisals of foreign mineral developments that affect domestic mineral industries and the overall mineral economy of the United States. The need for this type of service grows as the U.S. mineral requirements expand because of ever-increasing population and advances in the standard of living. Both the quantity and variety of minerals required by the United States expand steadily and as a consequence the Nation's peacetime and wartime security becomes more involved in international mineral affairs.

The Bureau maintains a technical staff to evaluate mineral developments abroad for the benefit of Government and industry groups concerned with foreign minerals and advises the foreign statistical unit in compiling mineral statistics from all parts of the world which are used in Bureau publications and by other agencies engaged in current Government operation in the mineral field. This activity covers both free and Communist worlds. The program is closely coordinated with other Government units and particularly the information-collecting activities of the Foreign Service. This assures efficiency in the use of funds appropriated for this purpose.

One of the most important objectives of the work in fiscal year 1965 is publication of the first volume of an annual world survey of mineral affairs, which will be issued in the Minerals Yearbook series. This volume will include summarized treatment of world mineral production showing its distribution by commodities, country, and continents. Basic trends will be evaluated. Individual chapters will present the highlights of mineral developments in foreign countries during the current year including those in production, consumption, international trade, internal policy changes, mineral discoveries and other technical, economic, and political factors that influence the availability of minerals from the area for use in the United States or the foreign markets for mineral products produced at home. This publication containing the review for 1963 calendar year will be issued the middle of fiscal year 1965. Planning and initial implementation is being conducted in fiscal year 1964.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $27,235,750 | $29,369,000 | $30,377,000 | +$1,008,000 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration | 34,368 | 35,000 | | −35,000 |
| Unobligated balance | 232,332 | | | |
| Appropriation | 27,502,450 | 29,404,000 | 30,377,000 | +973,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 19,048,851 | 21,035,000 | 21,985,000 | +950,000 |
| 12 Personnel benefits | 1,448,918 | 1,610,000 | 1,670,000 | +60,000 |
| 21 Travel and transportation of persons | 618,700 | 700,000 | 725,000 | +25,000 |
| 22 Transportation of things | 124,227 | 125,000 | 137,000 | +12,000 |
| 23 Rent, communications, and utilities | 836,146 | 840,000 | 851,000 | +11,000 |
| 24 Printing and reproduction | 412,347 | 375,000 | 409,000 | +34,000 |
| 25 Other services | 829,230 | 750,000 | 812,000 | +62,000 |
| 26 Supplies and materials | 1,571,864 | 1,689,000 | 1,797,000 | +108,000 |
| 31 Equipment | 2,224,250 | 2,180,000 | 1,926,000 | −254,000 |
| 32 Lands and structures | 121,311 | 65,000 | 65,000 | |
| 42 Insurance claims and indemnities | 1,134 | 1,000 | 1,000 | |
| Subtotal | 27,236,978 | 29,370,000 | 30,378,000 | +1,008,000 |
| Deduct quarters and subsistence charges | 1,228 | 1,000 | 1,000 | |
| Total obligations | 27,235,750 | 29,369,000 | 30,377,000 | +1,008,000 |

## Plans and Programs for the Bureau

Chairman Hayden. Mr. Ankeny, if you have a statement that you desire to have printed in the record, that may be done; or you may highlight it, whichever you please.

Mr. Ankeny. I have a statement which I would like to submit for the record and then highlight it.

(The statement referred to follows:)

### Statement of Marling J. Ankeny, Director, Bureau of Mines

Mr. Chairman and members of the committee, it is a pleasure for me to appear again before you, to discuss the plans and programs of the Bureau of Mines, and to present for your consideration estimates of the Bureau's financial requirements for fiscal year 1965.

Throughout its history the Bureau's fundamental responsibility has been to promote the wise development and use of this Nation's mineral and fuel resources—resources that are the building blocks of industrial civilization, the essential keys to economic growth.

Gentlemen, you know as well as I that an adequate supply of minerals and fuels for the United States must be assured. Providing such assurance has never been easy and, considering the complex forces at work in the world today, it can hardly be expected to become less difficult in the future. The demands being generated by our growing population with its constantly rising standard of living must be met either with imports from other countries or with domestic resources that are slowly but steadily diminishing in grade.

Obviously, the mineral-resource problems that we face are not simple. But they are by no means insurmountable. The free world is rich in mineral raw materials, and we have only begun to tap the wealth that lies in our own plentiful deposits of minerals and fuels. Moreover, we have within our reach the inexhaustible potential of still another resource—technology. By refining our industrial technology with the catalysts of science and engineering we can assure an adequate supply of essential materials now and in the future.

An advancing technology can protect the United States against certain danger in an uncertain world by preventing us from becoming irreversibly dependent on distant and vulnerable sources of mineral raw materials. Technology can enable us to search more effectively for untapped domestic resources. It can improve the safety and efficiency of the methods we now use to extract and process

minerals and fuels, provide us with new and more economic processes and machinery, and permit us to alter at will our use patterns for minerals. It can also reduce the drain on scarce resources by showing us how to minimize waste, to utilize scrap materials more efficiently, and to substitute plentiful minerals for those in relatively short supply.

The development of such a technology, as a dependable means of achieving conservation in its truest sense, has long been a major concern of the Bureau of Mines. Over the years the Bureau has contributed significantly to the methods, techniques, and equipment used by American industry in providing the mineral raw materials that sustain and increase our Nation's economic strength. Today, the Bureau is engaged in a broad and intensive program of scientific research that is providing a wealth of fundamental knowledge about our mineral and fuel resources and at the same time is yielding practical advances in methods for extracting them and putting them to use.

And now, Mr. Chairman, with your permission, I shall turn to the Bureau's budget estimate for 1965. Before discussing it in any detail, however, I want to say that we have scrutinized carefully and critically every item it contains. We have limited our request to essentials and have included only those programs that are indispensable to the national good and those that can be expected to yield substantial returns in a relatively short time.

For example, the Bureau is requesting no increase in fiscal 1965 for the varied resource studies and the mining and metallurgical research conducted under its comprehensive and integrated minerals and metals programs. After careful analysis, we have concluded that the progress necessary in these programs can be accomplished by shifting emphasis as the attainment of research goals or changing trends warrant such action. Also to be continued at the same level is the program by which the Bureau provides current information on international developments in the minerals field and appraisals of events affecting the mineral economy of the United States. Although the need for this type of service is growing as the Nation's mineral requirements expand, the Bureau is convinced that the improved efficiency it has achieved in the conduct of the international minerals activity will enable it to meet these requirements at least through fiscal 1965.

We have made substantial cuts in two other items. By limiting research on anthracite to areas that have the very highest potential, we have been able to effect a decrease of $235,000. In addition, we have accomplished a reduction of $75,000 in general administrative expenses through a reorganization and consolidation of administrative functions, which has permitted more effective utilization of manpower. The budget also reflects a reduction of $100,000 made possible by the termination of a study of health and safety conditions at metal and nonmetallic mines, authorized by Public Law 87–300.

The Bureau's budget estimate for fiscal year 1965 is $41,332,000 compared with $39,528,000 for 1964. This includes $30,377,000 for conservation and development of mineral resources; $9,530,000 for health and safety; and $1,425,000 for general administrative expenses. In addition, the Bureau is requesting $20 million of borrowing authority. This authority, $14 million more than the amount allowed for 1964, is essential for sustaining the helium conservation effort that has been so effectively begun.

The Bureau's estimate would provide for increases in the following items:

Increases totaling $317,000 are needed to move ahead with a well-balanced program aimed at overcoming safety and production problems resulting from the emission of methane gas during mining of coal. In recent months two major mine disasters were caused by explosions involving the ignition of this highly combustible gas. Odorless and invisible, methane can accumulate unnoticed in working places of underground mines until a sudden arc or spark touches it off. The result, too often, is death and destruction.

The Bureau is attacking the methane menace on two fronts. In experiments conducted during the past year, a "water-infusion" method being developed by the Bureau successfully removed methane from one of West Virginia's gassiest coal seams at rates up to 1,540 cubic feet a minute. These tests are continuing, with major emphasis now being placed on incorporating methane removal as part of the normal work cycle in a mine. This will not only aid safety but also facilitate operations in many of the Nation's mines. Of the $317,000 total I have mentioned, $217,000 is requested for this work under the "Conservation and development of mineral resources" appropriation.

The other $100,000 is requested under the "Health and safety" appropriation and is needed to expand research that will expedite development of rugged, practical devices for precise, automatic methane detection, and monitoring.

There is urgent need for additional testing and investigation of many physical principles that might prove valuable in developing such devices. The disasters that have resulted from methane ignition testify to the importance of providing some reliable and continuously operating safeguard against this danger.

In another area of health and safety, the Bureau is requesting an increase of $140,000 to expand the Bureau's safety education and training program to meet requirements of present-day mining industries and to keep abreast of rapidly changing conditions. The increase will substantially enhance the Bureau's ability to conduct special studies of outstanding health and safety problems, to provide up-to-date training materials and visual aids, and to offer training courses specifically designed to meet industry's needs.

An increase of $370,000 is requested for badly needed expansion of health and safety research and development work essential to control of the float-coal dust hazard, which is assuming dangerous proportions particularly in mechanized coal mines. The tremendous progress that has been made in mechanized mining has caused operations to be concentrated more and more at mine faces. As a result, greatly increased quantities of fine coal dust are generated in these relatively confined areas. These dust particles pose the constant threat of spreading an otherwise local gas ignition throughout a working section, or even an entire mine. Further research is vital to permit early development of basic criteria needed in formulating standards and practices to control the float-dust hazard.

The final increase requested under "Health and safety" is for $150,000, which will enable the Bureau to extend its mine ventilation research and related investigations. Ventilation is a major factor in all underground mining, and adequate ventilation becomes increasingly difficult to achieve as coal and other minerals are mined at greater depths. This problem and the difficulties in ventilation created by new and more rapid mechanized mining systems demand that research efforts in this area be stepped up.

Returning to the items under "Conservation and development of mineral resource":

The Bureau requests an increase of $200,000 for research on in situ retorting of oil shale—that is, retoring the shale in place, as it occurs in the ground. The promise of early production of oil from tar sands and the intense interest of American industry in the commercial promise of oil from Western oil-shale deposits indicate that the time is ripe for investigating the basic technology of in situ combustion. The enormous energy potential of our vast oil-shale resources has been established and the technical feasibility of converting this potential to some usable form has been indicated. We must now determine how this resource can be developed most economically. The study of in situ retorting will give us information on the recoveries that are possible by this method, and it may well determine the direction in which oil-shale development will proceed.

An increase of $126,000 for oceanographic research will provide the minimum funds required for the Bureau to establish its modest but extremely important program to explore the mineral potential of the ocean floor. The proposed program of marine minerals research will extend the Bureau's present effort, which is limited to reviewing available data on types, grades, and tentative location of areas of possible mineralization. Preliminary surveys will be made in inshore and shallow waters. Various sea-floor sampling devices will be tested and needs for specialized equipment will be carefully delineated. In this way a solid basis can be established for an efficient and productive investigation of what may ultimately prove to be a most abundant source of mineral raw materials.

As I have already indicated, $20 million of additional borrowing authority is needed to assure that the Bureau will be able to pay for helium that will be delivered in fiscal year 1965 by the five private industry plants that are now in operation. It is expected that these plants will extract and deliver to the Bureau of Mines for conservation, about 3½ billion cubic feet of helium that would otherwise be wasted into the atmosphere through stoves and furnaces in fiscal year 1965.

That, gentlemen, concludes my statement. We will be pleased to answer any questions that you may have.

### Responsibility of the Bureau of Mines

Mr. Ankeny. The Bureau of Mines continues to carry out its fundamental responsibility, which is the promotion of the wise development and use of the mineral resources of our country, and the promotion of safety and health in the mineral industries.

We feel that it is our mission to see that an adequate supply of mineral raw materials is assured to support the growing population of our country and the rising standard of living.

The mineral resources problem is not simple. Despite the fact that the world is rich in mineral raw materials, we have only began to tap the wealth of minerals that lies within our borders.

### Technology and Its Development

Moreover, we have within our reach an inexhaustible potential of another resource, technology. Advancing technology in minerals can prevent us from becoming dependent on other nations for essential mineral raw materials. It can enable us to search more effectively for minerals within our own boundaries. It can improve the safety and efficiency of mining methods and methods of extracting metals from ores. It can permit us to alter at will our use patterns of minerals, and can permit us to reduce the drain on scarce resources, and to substitute plentiful minerals for those that are in short supply.

The mission of the Bureau of Mines is to develop such a technology as a dependable means of achieving conservation in its truest sense. And to this end we are engaged in a broad and intensive program of scientific research.

Now, in our budget for 1965 we have scrutinized carefully every estimate, and the requests that we are making this year are limited to bare essentials.

We are asking for no increase for our studies of mineral resources, nor for the mining and metallurgical research.

### Budget Request Increases

The increases that we are asking for consist of $217,000 for methane drainage research; $100,000 for the development of a methane monitor for use in coal mines to detect methane at the mine faces; $140,000 to expand safety, education, and training in the coal mining and mineral fields; $370,000 to expand research on the control of float dust in coal mines, which has contributed to some of our more recent mine disasters; $150,000 to expand mine ventilation research; $200,000 for a preliminary study of the in situ retorting of oil shales; and $126,000 for our marine minerals research program.

The budget for 1965, then, consists of $30,377,000 for conservation and development of mineral resources, $9,530,000 for health and safety activities of the Bureau of Mines, $1,425,000 for general administrative expenses—a total of $41,332,000 for the regular activities of the Bureau.

And in addition, we are asking for $20 million borrowing authority for our helium conservation purchase program.

### Methane Gas Recovery Coordination

Chairman Hayden. Your justification statement indicates that the $237,000 increase for extraction research is to be aimed at overcoming production problems caused by methane gas. The Office of Coal Research is planning to enter into a contract with the West Virginia University to determine an economically and commercially attractive

method to recover free methane from coal seams prior to mining. How are the two agencies coordinating their work?

Mr. ANKENY. Well, these agencies are working very close together in coordination of this work. This is becoming a very important problem in the production of coal, for the reason that as the coal seams get deeper and production methods become more rapid, this results in a high rate of liberation of methane, so high, in fact, that the ventilation facilities that we now have are not enough to remove this methane as fast as it is being liberated.

So our project envisions the drainage of some of this methane before mining, so that our mechanical equipment can operate at full efficiency.

Chairman HAYDEN. By suction or otherwise?

Mr. ANKENY. Well, by drilling holes in advance, and by water infusion into these bore holes, and controlling the flow of methane from the coal seams.

Chairman HAYDEN. Last year the Congress added to your budget $250,000 for studying production of tars and oils from western coal through carbonization, as well as $100,000 for a comprehensive study of new uses for asphalt. Would you please indicate to the committee what you have been able to accomplish with these funds.

Mr. ANKENY. Mr. Chairman, I have with me Mr. Joe Rosenbaum, who is Assistant Director for Research, and I would ask him to respond to that question.

Chairman HAYDEN. All right, sir.

### ECONOMIC METHOD FOR CARBONIZING COAL

Mr. ROSENBAUM. The additional money that was granted for the work on coal is to make more economic the bituminous coal in the Western States, particularly those in Utah, Colorado, and Wyoming. Much of the steel industry now in the Western States is having some trouble competing with steel imported on the west coast. Part of the high cost of operation in the production of the Western States stems from the necessity to transport coal of a suitable coking grade for blending with the Utah coal and the Wyoming coals to make a suitable coke. By a low temperature carbonization process being developed and demonstrated at the Bureau's laboratory in Denver, we can make a char with a part of the western coal and blend this back with the bulk of the coal to make a suitable coke. This would avoid the necessity of hauling coal from long distances to blend with the Utah, Wyoming, and Colorado coals.

Chairman HAYDEN. Is that work now being done?

Mr. ROSENBAUM. This work is now being done. We have conducted coking tests at Pittsburgh, and we have made some char at Denver which has been sent to our Schuylkill Haven Laboratory for the preparation of briquettes. Tar and the pitch are byproducts of the carbonizing operation. We are addressing ourselves to finding uses for these tars and pitches. But basically the program is oriented to finding an economical method for carbonizing the coal for use in making coke.

Chairman HAYDEN. You are getting a good start, is what it amounts to?

Mr. ROSENBAUM. We are underway, equipment for handling carload lots of coal has been installed and we have advanced well with the laboratory procedures

Senator McGEE. Last year, Congress provided $100,000 to begin a 5-year program of asphalt research. As you know, we have a very fine research facility at the University of Wyoming in Larami.

What is the status of this program?

Mr. ROSENBAUM. The asphalt research project has gotten off to a good start and significant progress has been made in laying the foundation for the new work. Experienced, qualified personnel have been assigned and an advisory committee of four experts has been appointed, representing the Asphalt Institute and the industry. In the laboratory, preliminary tests of a new and unique analytical method, based on chromatography, are underway. A literature survey of past work, methods, and accomplishments is well advanced, and other analytical equipment has been modified for purposes of this study. A study of the kinds and quantities of samples that will be needed has been completed and arrangements have been made, with industry where indicated, to secure these samples.

ASPHALT RESEARCH

Asphalt is the residue from oil refining, it varies with the kind of refining process and the kind of oil feed that goes to the refinery. Recently we had a meeting with officials of the American Petroleum Institute, who complimented us upon undertaking this particular research. The asphalt consists of a conglomeration of substances that have never been completely identified. The properties have never been completely described nor cataloged. We have set up laboratory procedures, and are in the process now of categorizing the constituents that make up the asphalt. By learning what these components are we will better be able to modify them so that they will stick to the aggregate that goes into the asphalt pavements. More durable asphalt will result in fewer chuckholes when the weather gets bad.

Senator McGEE. How much have you requested this year for the program? Do you feel this is an adequate amount to continue the work on schedule? If not, how much more would you need? How will this money be spent?

Mr. ROSENBAUM. The budget request in fiscal year 1965 for the asphalt research is still $100,000, plus a small amount to pay for increased payroll costs. This is an adequate amount to continue the work on schedule. The 5-year schedule for the asphalt research work will require an increase in fiscal year 1966 of about $100,000 for several additional personnel and for equipment. In fiscal year 1965 the literature survey will be completed and published and the analytical equipment and procedures will be developed and in full use on a series of samples. Mass spectroscopy instruments, already available and in use at the Laramie Center, will be used in part for work on this project.

Chairman HAYDEN. What work do you have underway with respect to lignite?

LIGNITE RESEARCH

Mr. ROSENBAUM. Our work on lignite at our research station on the campus of the University of North Dakota, is being oriented in several directions. In one project we try to find ways by which the

lignite can be modified so it can be used as a soil conditioner. A major effort is being made on the gasification of lignite. We hope to develop processes for using lignite in the production of high-quality gases suitable for use in industry and for home heating.

Chairman HAYDEN. I understand there are quantities of it.

Mr. ROSENBAUM. That is correct, sir.

### RECLAMATION OF STRIPPED LAND

Chairman HAYDEN. In your justification statement there is an indication that a manuscript has been prepared in regard to the reclamation of stripped land. What recommendations are contained in the manuscript?

Mr. ANKENY. Mr. Zinner, our Assistant Director for Resource Activities.

Mr. ZINNER. Mr. Chairman, I believe that item referred to some work we did on three demonstration projects in Pennsylvania. The attempt here is to demonstrate that with the explosives the high walls left after stripping coal could be broken down, and the contour reestablished, so that some type of vegetation could be grown there.

Chairman HAYDEN. As it is, after strip mining the land is just utterly useless unless something like this is found. Isn't that right?

Mr. ZINNER. That is correct, sir.

Chairman HAYDEN. And how are you getting along with it?

Mr. ZINNER. We have done very little with it. The subject is under discussion now with regard to the whole Appalachia area. And I think that the committee now making a report to the President probably will bear very heavily on this subject.

CHAIRMAN Hayden. There is enough of it.

Mr. ZINNER. There certainly is; yes, sir.

### OIL-SHALE RESEARCH

Chairman HAYDEN. You are requesting a $228,000 increase for oil-shale research. Will you describe your activity in this field?

Mr. ANKENY. Mr. Rosenbaum.

Mr. ROSENBAUM. The $28,000 is for increased pay costs; $200,000 is to do the engineering and associated studies in selecting a site that might be amenable to production of oil directly from shale without mining the shale. The idea here is that possibly the shale could be fractured in place and a flame front induced to propagate through the shale, distilling the oil and driving it on ahead. Or perhaps if the site were suitable it might be possible to do the fracturing and retorting by the use of a nuclear device.

### MONEY REQUESTED

Senator McGEE. How much money have you asked for in the fiscal year 1965 budget for oil-shale research?

Mr. ROSENBAUM. The request for oil-shale research in fiscal year 1965 is for $1,136,000.

Senator McGEE. How does this compare with last year's funds, and how were those funds spent?

Mr. ROSENBAUM. The request for $1,136,000 represents an increase of $228,000 over the money provided in fiscal year 1964, of which

$28,000 is for increased pay costs for fiscal year 1964 personnel, and $200,000 is for the initiation of a project to study the in situ production of shale oil from oil shale.

A recently completed study of black shale cores from the New Albany shale deposits in Kentucky shows that from 10 to 20 gallons of oil per ton of rock can be recovered from the black shale and that each square mile of the deposits contains 10 million tons of this oil-bearing shale. Revegetation tests on spent oil shale conducted by the University of Wyoming at Laramie under an informal cooperative agreement with the Bureau indicate that drouth-resistant native plants and grasses will grow in the spent shale and that their seeds will germinate in it. Water retention by the spent shale seems to be the key to revegetation.

With the cooperation of State agencies, the U.S. Geological Survey, and oil and gas companies, the Bureau continues to assay and analyze core samples from oil shale deposits in Wyoming, Colorado, and Utah. The characteristics of oil shales occurring in a 2,000-foot depth interval over a 325-square-mile area in Colorado have been established and a correlation of the specific gravity of the assay shale oil with depth will be useful in many ways, including the assessment of the oil shales in other areas. The State of Utah now has granted oil shale leases on all State school lands and holders of the leases will benefit from the Bureau's study of core samples obtained from 40 coring operations and the drilling of 83 oil and gas wells in the Uinta Basin of eastern Utah.

Progress continues in determining the physical and chemical characteristics of the organic matter (kerogen) in raw oil shale. Industry has expressed its interest in the Bureau's work on the characteristics of oil shale, particularly the reactions that occur in the oil shale when it is heated. Extraction studies on oil shales show that the soluble material becomes more like crude oil as the depth of deposition increases. Some 18 different porphyrin compounds have been identified in raw oil shales and analyses indicate that retorted shale produces a shale oil in which the number of different porphyrin compounds is reduced markedly. Additional organic nitrogen compounds of possible commercial importance have been separated from shale oil fractions.

Progress has been good in the laboratory experimental work directed to the more efficient production of fuel and chemicals from shale oil by a combination of hydrogenation and catalytic cracking. A new study has been initiated to determine the efficiency and possible advantages that might result from retorting oil shale by heat transfer from a solid to the solid oil shale.

The recent approval by the Alberta government in Canada of a project to produce 45,000 barrels of oil a day from the Athabasca tar sands in northern Alberta, and the increased interest of U.S. oil companies in oil shale leases and in the future production of oil from oil shale, reflect the general feeling that crude oil production in the United States will have to be augmented by production of shale oil. The Bureau's research on oil shale and shale oil will be fundamental to the establishment of such an industry. In response to the many requests for information, both by mail and from visits to the Laramie Research Center, the Bureau has prepared and will soon publish a timely review of oil shale technology.

Senator McGEE. How do you plan to spend this year's funds that you have requested?

Mr. ROSENBAUM. A very careful review of the oil shale and shale oil research now in progress at the Laramie Research Center will be continued and emphasis will be shifted from unproductive areas to the most promising research prospects as they develop. The work plan for fiscal year 1965 is set forth in the justification beginning on page 46.

STATUS OF PROGRAM

Senator McGEE. What is the status of your research program in this area?

Mr. ROSENBAUM. The status is excellent and good progress can be expected to continue. The research staff is competent and enthusiastic and has been supplied with the necessary support and laboratory equipment. The status of the program is detailed in the justifications beginning on page 54.

Senator McGEE. Does your research program involve the oil shale deposits in Wyoming? With the excellent facilities existing at the University of Wyoming in Laramie and with the vast oil shale deposits in Wyoming it appears to me that Wyoming should figure prominently in your program.

Mr. ROSENBAUM. Our research program definitely involves the oil shale deposits of Wyoming. Core and drill samples are being obtained from Wyoming oil shale lands and are being assayed and analyzed. Some of the information is used immediately to further delineate the Wyoming deposits and to assess the oil shale potential. Careful consideration will be given to Wyoming lands in selecting a site for the proposed new field study of the possible production of shale oil by in situ retorting. Practically all of the research results obtained at Laramie are applicable to Wyoming oil shale and shale oil, as well as to the other Rocky Mountain area resources.

Senator McGEE. Is the Executive order of 1930 which limits your work in some particular areas hampering your oil shale research program?

Mr. ROSENBAUM. The Executive order of 1930 withdrawing all public lands from oil shale leasing does not hamper our research program at all. Executive Order No. 5327 states that the lands are "* * * withdrawn from lease or other disposal and reserved for the purposes of investigation, examination, and classification." We anticipate no difficulties in our research program from the provisions of the order.

Chairman HAYDEN. I have just received a statement from Senator Bennett supporting the oil shale field test proposed by the Bureau of Mines. This statement will be included at this point in the record.

(The statement referred to follows:)

OIL SHALE FIELD TEST

Mr. Chairman, I would like to thank the committee for allowing me the opportunity to testify today in behalf of an important Interior Department request for an oil shale test.

Oil shale is the Nation's first supplementary source of liquid fuels. Stored in huge deposits, this tremendous energy resource is greater than the known petroleum reserves and assures adequate domestic supplies of liquid fuels, gases, and petrochemicals for the foreseeable future.

Oil shale is the second most abundant fossil fuel in the Nation. It is exceeded only by coal and is more plentiful than petroleum and natural gas, which together furnish more than 70 percent of the energy consumed domestically.

The shale is found in many States throughout the Nation, but information and documentation of reserves in all except the Green River formation of Colorado, Utah, and Wyoming are sparse and incomplete.

Geologists have told us the Green River shales represent more than a trillion barrels of oil in place.

The chemical makeup of the organic matter in oil shale is not completely understood, but heat, normally applied to mined and crushed shale in retorts, converts the organic matter to gas, oil, and a carbonaceous residue. Oil obtained in this manner contains large proportions of unsaturated compounds, both hydrocarbons and derivatives of hydrocarbons containing oxygen, nitrogen, and sulfur.

By the proper techniques, this oil can be converted to products similar or identical to those from petroleum.

However, there is a considerable lack of information regarding oil shale technology. Research is needed to fill these gaps so an oil shale industry, not now in existence in the United States, can be operated economically when it becomes desirable to utilize this resource.

Among these areas of needed research are resource evaluation, composition and properties of oil shales, mining, crushing, materials handling, retorting or other conversion processes, refining, and properties and composition of products.

### "IN SITU" TECHNIQUE

A big step forward in assuring the start of an oil shale industry is a proposed $200,000 field test of the "in situ" (in place) technique for oil shale production. The Interior Department has asked Congress to authorize the funds for the test in fiscal year 1965. The work would be accomplished by the Laramie Petroleum Research Center, a Bureau of Mines installation in Wyoming.

The "in situ" method of testing calls for retorting of the oil shale under ground. Simply speaking, holes would be drilled, fire and air would be forced down into the holes, and the resultant shale oil would be pumped to the surface.

The Utah area has vast deposits of oil shale, and if tests such as that proposed could work out successfully, the area could provide the Nation an excellent storehouse of energy.

Since about 95 percent of Utah's oil shale reserves are located underground they would lend themselves to an "in situ" method of extraction.

Utah's oil shale reserves total 4,680 square miles and the estimated oil shale deposits may total upward of 120 billion barrels. The oil-shale-bearing rocks of the Utah formation have been well defined in an area covering portions of Uintah, Duchesne, Wasatch, Utah, Carbon, Grand, and Emery Counties.

Utah's shales fill the Bureau's requirement for reduction tests. The Bureau is looking for overburdens of 500 to 600 feet, distant from cliff face or other escarpment, necessary to controlling fire or oil pressures.

I strongly urge the Interior Subcommittee to consider favorably the inclusion of $200,000 in the Interior Department's budget request for this test. If the oil shale industry is to become a reality, there has to be a start somewhere and a Government-conducted test of this type is a good approach.

I also am hopeful that the test would be conducted in Utah, where the conditions for the test are excellent.

Thank you, Mr. Chairman.

### OCEANOGRAPHIC RESEARCH

Chairman HAYDEN. I note that you are proposing an appropriation of $182,000 for oceanographic research, an increase of $129,000 over the amount made available in fiscal 1964. Please explain to the committee how you used the $53,000 appropriated last year and how you propose to use the amount of your request in fiscal year 1965.

Mr. ANKENY. Mr. Chairman, I have with me this morning the project leader of our marine minerals research program, John Crawford, and I would like to have him explain this situation.

Mr. CRAWFORD. Thank you, Mr. Ankeny.

In this fiscal year, Senator Hayden, we have examined and appraised technical information on marine minerals that has been made available to the Bureau from the various groups working in oceanography, and have charted the areas in which minerals of potential industrial value have been found to occur. We have been considering concepts for equipment and instruments to develop and mine these marine mineral deposits. We have made a start, a modest start with a few people, toward gaining a better knowledge of the economics of sea-floor minerals as they are known today.

In fiscal year 1965 this work would be extended, but again very modestly, with the funds that are being proposed. We would continue the appraisal of new information on marine mineral occurrences provided from time to time by people working in the field of marine geology. We would conduct some preliminary field examinations of known mineral deposits on the Continental Shelf, in shallow waters at near-shore locations. We would try to determine the amount of ore in the deposits that can be mined; that is, define the economic reserves of the raw materials. We would also help industry develop deep-sea mining methods, because new types of equipment and procedure will be required to recover minerals from the sea floor; and we would conduct research and processing systems for the economic utilization of the marine materials.

### Accelerated Public Works Program Projects

Chairman Hayden. Have you accomplished any projects through the use of accelerated public works funds? If you have, will you please supply for the committee a table showing the projects, their costs and location, and if a local or State government participated, the extent of that participation.

Mr. Ankeny. We would be happy to supply that; yes, sir.

(The statement referred to follows:)

### Projects Under the Program

The Bureau of Mines has been assigned and is conducting two projects under the accelerated public works program, both of them in Pennsylvania.

One of these projects is in the anthracite district in Northumberland County. Its purpose is to extinguish a fire in a seam of coal, which is done by trenching and backfilling and by flushing fill into the underground openings through drill holes. A contract was let at the end of fiscal 1963. The project is now about 65 percent complete and will be finished before the end of this fiscal year. The Commonwealth of Pennsylvania has contributed a little over $83,000 and the Bureau of Mines has received and obligated about $65,000 of accelerated public works funds against the contract.

The El Campton project, in Clearfield, Clinton, and Elk Counties, is a demonstration of reclamation procedures for strip-mined areas. Approximately $117,000 of accelerated public works funds have been obligated on this project, which is now about 70 percent complete. Work has been recessed for the past 3 months but will be resumed as soon as weather permits.

### Susceptibility of Minerals to Electrometallurgical Processes

Senator McGee. As you know, I introduced Senate Joint Resolution 7 last year which called for a study to determine the susceptibility of minerals to electrometallurgical processes.

The economic stability and prosperity of the Rocky Mountain area depends largely upon the development of industrial processes which will make economically usable minerals found in the United States.

The Senate Interior and Insular Affairs Committee advised me that the Bureau of Mines already had sufficient authority to conduct this type of study.

Do you now have a program operating to perform this study? How much have you asked for to continue it? How much would you need to get it started? Will you describe for the committee the status of the program?

Mr. ROSENBAUM. The present Bureau of Mines research program includes studies related to the susceptibility of minerals to electrometallurgical and other metallurgical processes. Since studies of this type have been a part of the Bureau of Mines research program from its beginning, no additional funds are needed to start the work and projects are continuing under regular authorizations.

A large part of the Bureau's metallurgical research program is conducted in the Rocky Mountain and adjacent areas by research centers at Albany, Oreg.; Reno, Nev.; and Salt Lake City, Utah; and a laboratory at Boulder City, Nev. Their respective budgets (1964 fiscal year) for all metallurgical research and the respective portions allocated specifically for electrometallurgical research are as follows:

| Location | Total metallurgical research | Electrometallurgical research |
|---|---|---|
| Albany, Oreg., research center | $1,820,000 | $80,000 |
| Reno, Nev., research center and Boulder, Nev., laboratory | 1,840,000 | 760,000 |
| Salt Lake City, Utah, research center | 1,090,000 | 130,000 |
| Total | 4,750,000 | 970,000 |

The total fiscal year 1964 Bureau of Mines budget for metallurgical research at the seven centers and five laboratories is $8,875,900, with $1,071,000 allocated for electrometallurgical research. The program is expected to continue essentially at the same level in fiscal year 1965.

### HEALTH AND SAFETY PROGRAM

Chairman HAYDEN. There will be placed in the record a statement in support of the request for $9,530,000 for health and safety in the coming fiscal year, an increase of $866,000 over the amount provided in fiscal year 1964.

(The material referred to follows:)

### HIGHLIGHT STATEMENT

#### PURPOSE AND LONG-RANGE OBJECTIVE

Bureau of Mines health and safety programs are designed to: (1) Prevent accidents and injuries primarily in the mineral extractive industries of the United States, represented by coal, metal, and nonmetallic mining, quarrying, metallurgical, petroleum, and natural gas; (2) develop safeguards to protect the lives and health of persons employed in such industries; and (3) extinguish or otherwise control fires in inactive coal deposits. The purpose of these programs is to save lives and improve the economy of the Nation's mineral industries by eliminating costly accidents, personal injuries and impairment of health, and by avoiding destruction of valuable natural resources and destruction or disablement of facilities to produce them.

Although the ultimate long-range goal of the Bureau's health and safety programs is the elimination of accidents and injuries throughout the mineral indus-

tries, it is unlikely that such a goal can be attained. The nature of underground mining occupations, whether in coal or noncoal mines, is inherently hazardous. Underground mining poses dangers that most other industries do not have to combat. Progress toward the ultimate goal should, therefore, be considered satisfactory if a steadily declining frequency rate—lost-time injuries per million man-hours of exposure—can be achieved in the extractive mineral industries, particularly underground mining.

ACCOMPLISHMENTS DURING PAST YEAR

The record of Federal coal mine inspections for 1962 shows that the average number of inspections per active mine regularly employing 15 or more men underground (classed as title II in the Federal Coal Mine Safety Act) was 2.4 times; whereas for mines regularly employing less than 15 men underground (classed as title I in the Federal Coal Mine Safety Act) the average was 1.3 inspections. Strip mines were inspected 0.8 time, and auger mines 0.7 time during the year. Because of seasonal or otherwise intermittent operation or abandonment of the mines, some facilities could not be inspected during the year.

Experience of the Bureau of Mines, extending over a half century, discloses that best results in preventing accidents and injuries are obtained largely through safety-educational activities. Over 5,400 persons completed various Bureau accident-prevention training courses and approximately 26,600 persons completed the first-aid and mine-rescue courses during the fiscal year 1963. Also contributing to the overall effort was the attendance of approximately 57,000 persons at the Bureau's demonstrated lectures on safety and 81,000 persons at Bureau screenings of safety films. In addition, approximately 90,000 persons attended Bureau-sponsored safety meetings, including those of the Holmes Safety Association.

Special emphasis was given to safety education in the metallic and nonmetallic (other than coal) mining industries during the fiscal year 1963 as a coordinated effort with mine inspections, fatal accident investigations, and statistical canvassing studies authorized by Public Law 87-300, pertaining to a 2-year mine-safety study conducted by the Bureau of Mines.

The testing of underground equipment and devices and approving as permissible those which conform with prescribed regulations, coupled with research on and development of new devices to keep abreast of changing or newly encountered conditions, contributed substantially to the overall safety performance of the mineral industries.

Falls of roof, back, or ground cause most of the fatalities and serious injuries in underground mining operations. Research continued on roof control through the year. Studies of roof and rock bolting to prevent falls coupled with new techniques of bonding poorly consolidated roof strata with resinous substances and the scientific study of "bumps" or rock bursts, provided guidance for the mining industry to combat its most prolific hazard—unexpected falls of roof or ground.

A breakthrough was reached in studies to predict failures of roof and pillars in coal mines that are subject to "bumps" and rock bursts through the use of Bureau-designed encapsulated hydraulic-load cells that are embedded in coal or rock strata surrounding mine passageways.

New chemical formulations, spraying equipment, and application techniques for rigid foam applied in mines were developed. The foam is an effective aid to mine ventilation, prevents corrosion of metals, inhibits weathering of mine surfaces, provides thermal insulation, and is used in rapid construction of mine seals and nonload-bearing walls.

Two prototype methane monitoring detectors were tested in an operating coal mine. The results were used to prepare specifications for five experimental prototypes with different amplifying circuits for electric signals of changes in methane concentration detected by small catalytic gas-sensing elements.

Methods employed to control dust generated by continuous mining machines in coal mines were studied to provide the basis for further research into more effective dust control procedures. Investigation was started on the use of foam instead of water for dust control.

Investigation of air conditioning and ventilation of high temperature mines was continued with a study of mechanical refrigeration operated in series with cooling towers.

The 2-year study, authorized by Public Law 87-300, to appraise health and safety conditions and practices in metal and nonmetallic (other than coal mines was completed. The study included the causes of work injuries, relative effec-

tiveness of safety education conducted for the employees, State laws pertaining to such mines, and effectiveness of law enforcement in the various States.

The control of fires in inactive coal deposits is a continuing activity in which eight fires were extinguished or controlled during the fiscal year 1963. Some maintenance work was necessary to prevent previously controlled projects from rekindling.

PROGRAM CHANGES

Although primary objectives continue unchanged, the programs in health and safety are subjected to continual scrutiny because working and economic conditions in the mineral industries change or new conditions arise, requiring flexibility to shift emphasis or to add other programs as conditions warrant. Based on facts revealed by investigation of recent disasters and fatal accidents, emphasis on and expansion of accident-prevention education and training in all types of mines is needed to combat rising trends in fatalities and disabling injuries. The rapid advance of mine workings and mineral extraction through widening application of new mining methods and high-output machines, particularly in ultragassy coal mines, has caused revision of precautions necessary to safeguard against gas and dust ignitions. This has led directly to the Bureau's investigations to develop a practical and effective methane monitoring system, to develop more effective dust-control measures, and to improve face and general mine ventilation.

OBJECTIVES AND PROGRAM FOR FISCAL YEAR 1965

The Federal Coal Mine Safety Act requires at least one inspection of each title II mine annually and also authorizes the Bureau of Mines to make annual or necessary inspections of title I mines. The Bureau, however, recognizes that its obligations under the act cannot be discharged by adhering to minimum requirements. Currently the objective is to inspect each title II mine at least 3 times annually, each title I underground mine twice a year, and each strip and auger mine at least once annually.

Bureau of Mines studies during fiscal year 1963 revealed that one of the most successful means of preventing accidents and injuries in the mining industries is through accident-prevention educational training; however, a modern approach and up-to-date aids and test materials are needed to keep abreast of rapidly changing mining conditions. To accomplish the overall objective, contingent on the availability of funds, mine-safety instructional publications, sound motion picture films and other visual aids will be developed and others updated; and closer cooperation with industry will be initiated to develop new courses and instructional materials to meet industry needs. Also, additional Bureau instructional personnel will be trained and equipped to carry on this important work.

With the tremendous increase in mine mechanization, the hazards of explosions and fires have greatly increased due in a large measure to the rapid generation of fine coal dust at working faces. Such dust readily becomes airborne and the problem of counteracting it has greatly increased. Research to combat the fine-coal float-dust hazard will be stepped up by reexamining basic rock dust standards, including the use of rock dust barriers; determining float-dust characteristics; exploring new methods for collecting, inhibiting or otherwise limiting deposition of fine-coal dust; and modifying present means of dust control to effectively reduce the fine-coal float-dust explosion hazard.

Ventilation research and investigations will be augmented to keep abreast of modern mine-ventilation requirements. The health and safety of mine workmen is dependent in a large measure on an adequate volume of clean air to breathe and to dilute, render harmless, and carry off the explosive or noxious gases that may be liberated or generated in mining operations. Mining has become progressively more difficult as coal, and metal and nonmetallic ores are extracted from increasing depths below the earth's surface. In some gassy coal mines operations can be carried on only with close attention to ventilation because of the large volumes of methane liberated.

In some deep metal mines high rock temperatures complicate the ventilation problem by requiring air conditioning and cooling to maintain the comfort, health, and productivity of the workmen. The use of underground diesel-powered equipment and new types of blasting agents require attention of the skilled ventilation engineer. The mining industry has long looked to the Bureau of Mines for guidance and assistance with its more difficult ventilation problems.

Prompt detection of methane, particularly in coal mines, has been as difficult to achieve as to carry methane away harmlessly as it is liberated from the coalbed or contiguous rock strata. The problem of timely detection by officials and mine

workmen has been intensified especially in ultragassy mines by the demands of mechanized mining. High productivity usually is accompanied by a high rate of methane liberation in a gassy coal mine. Recent gas ignitions and explosions have demonstrated that human beings cannot be depended upon to test for methane at frequent enough intervals to assure prompt detection of dangerous accumulations. The Bureau has conducted some research to develop a suitable device for automatic methane detection and monitoring. This is a high-priority undertaking that calls for a rapid solution; and the effort is to be expanded and expedited to the end of preventing disastrous methane ignitions.

Research and testing in gas analysis is planned to: (1) Determine with a non-dispersion infrared analyzer trace concentrations of carbon monoxide in gases from sealed fire areas of coal mines; (2) examine methane in coal mine atmospheric samples by gas chromatography to detect higher hydrocarbons; and (3) broaden utilization of the dispersion-infrared spectrometer to analyze mine gases and other gaseous mixtures.

Encapsulated hydraulic-load cells will be utilized extensively to study pressure changes in mine roofs and pillars in the investigation of the causes of "bumps" and pillar bursts. Preliminary results have been very encouraging in predicting occurrences.

Testing will be continued on roof bolts, bearing plates, and anchors to improve minimum standards of roof bolting. Studies will continue on the use of rock-bonding chemicals to improve roof-bolt anchorages in soft strata and to stabilize and consolidate mine roof by injecting such substances into fractures and other planes of weakness in mine roof.

The Bureau's service to the mining industry in testing for permissibility of various electric- and diesel-powered machines, auxiliary devices, and respiratory-protective equipment will be continued and improved, where possible.

The control of fires in inactive coal deposits will be continued. Projects will be initiated in order of urgency and availability of funds. The Bureau has records of 231 uncontrolled fires in inactive coal deposits, 115 fires that have been extinguished or controlled under this program, and 6 fires that are currently being fought. The objectives are to prevent losses of valuable natural resources and to prevent loss of life or impairment of health of those living or working near such fires.

*Health and safety*

| | |
|---|---|
| Appropriation, 1963 | $8,448,700 |
| Unobligated balance from prior years | 23,000 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration | −23,061 |
| Total available, 1963 | 8,448,639 |
| Appropriation, 1964 | 8,664,000 |
| Unobligated balance from prior years | 23,000 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration | −2,000 |
| Total available, 1964 | 8,685,000 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | | |
|---|---|---|
| Inspections, investigations, and rescue work: | | |
| To provide for increased pay costs for fiscal year 1964 positions | +$177,000 | |
| To provide for expansion of the safety educational program | +140,000 | |
| Completion of special study on health and safety in metal and nonmetallic mines | −100,000 | |
| | | +217,000 |
| Control of fires in coal deposits: | | |
| To provide for increased pay costs for fiscal year 1964 positions | +7,000 | |
| Completion of control of fires project authorized in 1960 | −23,000 | |
| | | +16,000 |

*Health and safety*—Continued

SUMMARY OF INCREASES AND DECREASES, 1963—Continued

| | | |
|---|---|---|
| Health and safety research: | | |
| To provide for increased pay costs for fiscal year 1964 positions | +$24,000 | |
| To provide for expansion of fine-coal float-dust explosion research | +370,000 | |
| To provide for expansion of mine ventilation research and investigations | +150,000 | |
| To provide for expansion of methane detection and monitoring research | +100,000 | |
| | | +$644,000 |
| Net change | | +845,000 |
| Budget estimate, 1965 | | 9,530,000 |

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 | | |
|---|---|---|---|---|
| | | Total appropriation | Transfers [1] | Amount available |
| 1. Inspections, investigations, and rescue work | $6,444,277 | $6,672,000 | −$2,000 | $6,670,000 |
| 2. Control of fires in coal deposits | 373,352 | 396,000 | | 396,000 |
| Unobligated balance carried forward | 23,000 | | | 23,000 |
| 3. Health and safety research | 1,553,899 | 1,596,000 | | 1,596,000 |
| Unobligated balance lapsing | 44,111 | | | |
| Total | 8,448,639 | 8,664,000 | −2,000 | 8,685,000 |

[1] Represents transfer to General Services Administration unless otherwise footnoted.

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. Inspections, investigations, and rescue work | $6,444,277 | $6,670,000 | $6,887,000 | +$217,000 | +$177,000 | +40,000 |
| 2. Control of fires in coal deposits | 383,352 | 419,000 | 403,000 | −16,000 | +7,000 | +23,000 |
| Unobligated balance carried forward | 23,000 | | | | | |
| 3. Health and safety research | 1,553,899 | 1,596,000 | 2,240,000 | +644,000 | +24,000 | +620,000 |
| Unobligated balance lapsing | 44,111 | | | | | |
| Total | 8,448,639 | 8,685,000 | 9,530,000 | +845,000 | +208,000 | +637,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*Inspections, investigations, and rescue work*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| Inspections, investigations, and rescue work | $6,444,277 | $6,670,000 | $6,887,000 | +$217,000 | +$177,000 | +$40,000 |

INSPECTIONS, INVESTIGATIONS, AND RESCUE WORK

The estimate of $6,887,000 is a net increase of $217,000 over 1964, consisting of—

(1) A decrease of $100,000 from 1964 caused by termination of the metal and nonmetal (other than coal) mine study authorized by Public Law 87–300.

(2) An increase of $317,000 including (*a*) $177,000 for increased pay costs, and (*b*) $140,000 to provide for expansion of the safety educational program.

*Need for increase*

*Safety education and training, increase, $140,000.*—The Bureau's safety education and training is a continuing program that calls for expansion to meet requirements of the present-day mining industries and to keep abreast of rapidly changing mining conditions. Needed in this program are up-to-date mine health and safety publications, more motion-picture film productions and other aids on mine health and safety subjects, development of new accident-prevention instruction courses in cooperation with industry, and training and equipping of additional instructional personnel to carry out the augmented educational program.

During the 1963 fiscal year, studies were made of company injury rates before and after accident-prevention training. On an overall basis, the results showed that very favorable reduction of fatal and nonfatal injuries followed such training for periods ranging up to 2 years, but that injury rates ordinarily rose to average levels after longer periods without additional training. Other studies showed that arrangements for accident-prevention training were accomplished mainly through Bureau solicitations with favorable responses from approximately 11 percent of the industry that was solicited. Recent disasters in the mining industry have demonstrated clearly the need for broader coverage and more active participation of the industry in safety-educational programs.

The expanded program will provide means for making special studies of health and safety problems in industry, providing up-to-date training materials and visual aids, and developing courses that meet the needs of industry. Most important, it will increase the Bureau capabilities for service to the mining industry—coal, metal, and nonmetallic—through safety education and training.

*Plan of work*

Appropriated funds will be expended mainly in the field coincident with inspections, field investigations, and educational aspects of the Bureau's health and safety activities. The primary objectives of these activities are to prevent industrial accidents, injuries, and occupational diseases of mineral-industry workmen and by so doing protect the lives and health of those who work in the mineral (coal and noncoal), metallurgical, petroleum, natural gas, and allied industries. This is accomplished through mine inspections, safety investigations, accident prevention education, and roof-control, ventilation, and working environment investigations in mines.

Coal mine inspections and investigations are carried on in accordance with the requirements of the Federal Coal Mine Safety Act (Public Law 552, 82d Cong.). The administration and enforcement of this law was delegated by the Congress to the Bureau of Mines.

Established methods for disseminating accident-prevention education in the mineral industries (coal and noncoal) for workmen and supervisors will be continued by classroom and on-the-job instruction, demonstration, films, and other visual aids, and instruction in first-aid and mine rescue procedures. New techniques in teaching accident prevention to stimulate company-sponsored training have been instituted to broaden the base of accident-prevention educational training.

Service to the mining industry through improved ventilation, dust-control, and roof-control techniques is a continuing activity germane to the general overall objective of preventing loss of life and impairment of health of workmen, particularly those engaged in underground mining operations.

*Control of fires in coal deposits*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| Control of fires in coal deposits | $383,352 | $419,000 | $403,000 | −$16,000 | +$7,000 | −$23,000 |

CONTROL OF FIRES IN COAL DEPOSITS

The estimate of $403,000 is a net decrease of $16,000 from the amount available for 1964, representing—

(1) A reduction of $23,000, representing unobligated funds appropriated without fiscal year limitation for the control of an underground fire in the vicinity of Scranton, Pa.

(2) An increase of $7,000 to cover increased pay costs.

*Plan of work.*—Funds for this activity will be spent almost entirely in the field to control or extinguish fires in inactive coalbeds on private property and on the public domain. The purpose is twofold: (1) To prevent destruction by fire of valuable resources, and (2) to protect the lives and health of persons living or working in proximity to such fires. Thirteen fires are scheduled for control during the fiscal year 1964, together with six uncompleted projects carried over from fiscal year 1963. The Bureau has records of 231 other fires in inactive coal deposits on private property and the public domain. These will be attacked in order of urgency and availability of funds.

*Health and safety research*

| Activity | Fiscal year 1963, amount available | Fiscal year 1964, amount available | Fiscal year 1965, estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| Health and safety research | $1,553,899 | $1,596,000 | $2,240,000 | +$644,000 | +$24,000 | +$620,000 |

HEALTH AND SAFETY RESEARCH

The estimate of $2,240,000 is an increase of $644,000 over 1964. The increase includes $24,000 for increased pay costs, and $620,000 to (*a*) extend research and development for controlling the float-coal dust hazard, particularly in mechanized coal mines ($370,000), (*b*) extend research to improve mine ventilation, particularly face ventilation in highly mechanized mines ($150,000), and (*c*) expedite development of methane-monitoring devices to combat the hazard of mine explosions ($100,000).

*Need for increase*

*Fine-coal float-dust explosion research, increase, $370,000.*—With the tremendous progress in mechanized mining technology and concentrated loading at mine faces, problems and hazards of mine explosions and fires have been greatly increased. Further dust explosion research is vital to develop basic criteria that will permit evaluation of present safety standards in modern mining, particularly as applied to fine coal float dust. Concentrated mechanical mining has greatly intensified the float-dust problem and requires that basic rock-dust standards considered adequate for many years be improved and possibly supplemented by other means to control float-dust explosions, including rock-dust barriers. The Bureau of Mines is responsible for conducting research to reduce this hazard by determining float-dust characteristics and methods for collecting, inhibiting, or otherwise limiting deposition of fine coal dust thereby minimizing the difficult and often poorly applied rock dust to coal mine surfaces.

The instruments presently used at the Bureau's experimental coal mine are obsolete, inadequate, and inaccurate for obtaining needed information. Present dust preparation equipment is old, hazardous to operate, and incapable of providing coal dust of the required fineness in the quantity desired for the proposed large-scale experiments. New auxiliary facilities should be provided to study the transport and deposition of float dust as affected by air velocity, particle size, type, and quantity of dust. Fundamental information is necessary for coal, rock, and other dusts to facilitate meaningful large-scale mine experiments. The requested increase in funds will provide for replacing obsolete equipment, including instrumentation, and the addition of 12 new positions—4 professional, 7 subprofessional, and 1 clerical—to carry on the expanded research.

Experience from recent coal mine disasters emphasizes that the need for fundamental research in the experimental coal mine is fully as great, if not greater, than when the Bureau of Mines was organized. Results obtained at the experimental coal mine have merited national reputation. The coal mine industry depends upon the continued development of Bureau of Mines information through ex-

haustive experiments which utilize technological progress toward improving safety in modern coal mining operations.

*Mine ventilation research and investigations, increase, $150,000.*—Long-range planning is required to fortify the Bureau of Mines reputation throughout the mining industry to direct and guide progress in mine ventilation—a field in which expert knowledge is limited. The Bureau's capabilities in this field should be extended to keep abreast of rapidly advancing mining methods, to maintain its high standard of leadership, and to provide the mining industry with improved technological information.

Ventilation is a foremost safety factor in all kinds of underground mining operations, and becomes progressively more difficult as coal and ores are extracted from increasing depths below the earth's surface. Even now some gassy coal mines can be operated only with the most exacting attention to ventilation to prevent dangerous accumulations of methane. Especially vital is the need to improve ventilation in face areas to counteract the effects of rapid liberation of dangerous gas and generation of explosive dust. New methods of mining and more powerful mining machines, both developed for more rapid, economic, and efficient extraction of mineral substances, have intensified hazards in the face areas and complicated the problems of providing adequate ventilation. Increasing use of diesel-powered equipment and new types of blasting agents require careful attention of the ventilation engineer. With mining at greater depths, air-conditioning and cooling are required in many instances to maintain the comfort, health, and productivity of mine workmen, with corresponding need for engineering knowledge and skill for effective design and operation. The augmented mine ventilation research program would embrace the establishment of four additional professional positions.

Ventilation studies necessitate laboratory experiments to improve instrumentation and measurements used to study fan performance and design for special face-ventilation applications, vent-tube air conductors, patterns of air flow with changes in velocity, characteristics of blowing and exhausting systems, resistance factors as they affect loss and regain of static pressure, and power needs. Such information requires supplemental trials and analyses of ventilating systems in commercial mines to appraise their effectiveness. Ventilation costs at different operations require analysis to obtain data that will assist mine management in improving ventilation of their mines thereby increasing safety, particularly in face areas of coal mines, or point the need for installing new ventilating equipment. Increased facilities and personnel are needed for detailed studies by the absolute pressure method and other advanced techniques to aid mine managements in detecting and correcting abnormalities and to increase efficiency. Field observations are necessary to keep abreast of new industrial developments in ventilation equipment; mine air conditioning; use of synthetic foams and mineral products for mine stoppings, dust collectors, and space filters; and instrumentation pertaining thereto.

*Methane detection and monitoring research, increase, $100,000.*—In coal mine operation there is an imperative need for rugged, practical devices for precise, automatic methane detection and monitoring. Additional funds are required to expand and expedite research and development of this high-priority project to provide more adequate testing and investigation of many physical principles that might be used for methane detection and to discover and develop auxiliary equipment for an automatic monitoring system that must not be affected by the rugged use of operating mining machines.

Investigations of recent coal mine explosions have disclosed that human failure to test for and detect methane buildup in the working-face areas was an important contributory factor. To overcome the frailty of human nature a device is required that will continually sample the mine atmosphere in the working area, sound an alarm when the methane content reaches approximately 1.5 percent; then, if this warning is ignored, cut off electric power from the equipment and power cables in the affected area when the methane content reaches about 2.5 percent.

Enlargement of methane-detection research and field testing of methane monitors through additional personnel, consisting of six professional and one clerical positions, and development of specialized instruments and facilities will enable the Bureau of Mines to maintain its rightful leadership in preventing accidents and injuries from methane ignitions and explosions. Current research to develop a practical methane monitor has been encouraging but much more remains to be done to improve various components to provide the most reliable instrument possible.

*Plan of work*

Appropriated funds will be expended mainly in Bureau of Mines laboratories and its two experimental mines. Research will be directed toward improving electric- and diesel-powered equipment for underground work; methods and equipment to counteract health hazards of the mineral industries; establishing more scientific bases for roof control, including prevention of "bumps" or rock bursts; improving mine ventilation, particularly at working faces, and aiding the mining industry in solving difficult ventilation problems, including air conditioning and cooling; and preventing dust explosions and mine fires by applying new concepts of controlling float-dust transport, rock dusting, and dust binding and settling.

Test work will be continued on improvements in mine equipment that previously had been approved by the Bureau as well as new equipment. Increasing demand for testing and approval of underground electric- and diesel-powered equipment, lighting and shot-firing devices, gas detectors, drill-dust collectors, gas masks, respirators, and self-contained breathing devices, calls for greater application of Bureau personnel to provide and improve these important services that the mineral industries depend upon for unbiased evaluation of the safety of such equipment.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $8,381,528 | $8,685,000 | $9,530,000 | +$845,000 |
| Unobligated balance brought forward | −23,000 | −23,000 | | +23,000 |
| Unobligated balance carried forward | 23,000 | | | |
| Unobligated balance | 44,111 | | | |
| Appropriation | 8,425,639 | 8,662,000 | 9,530,000 | +868,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 6,290,599 | 6,600,000 | 7,012,000 | +412,000 |
| 12 Personnel benefits | 460,960 | 485,000 | 520,000 | +35,000 |
| 21 Travel and transportation of persons | 348,275 | 350,000 | 375,000 | +25,000 |
| 22 Transportation of things | 26,529 | 26,000 | 27,000 | +1,000 |
| 23 Rent, communications, and utilities | 128,285 | 130,000 | 138,000 | +8,000 |
| 24 Printing and reproduction | 67,864 | 60,000 | 85,000 | +25,000 |
| 25 Other services | 508,847 | 500,000 | 533,000 | +33,000 |
| 26 Supplies and materials | 289,315 | 298,000 | 410,000 | +112,000 |
| 31 Equipment | 260,854 | 236,000 | 430,000 | +194,000 |
| Total obligations | 8,381,528 | 8,685,000 | 9,530,000 | +845,000 |

Chairman HAYDEN. Now, will you please comment on the various aspects of this program?

Mr. ANKENY. Mr. Westfield, the Assistant Director for Health and Safety, will respond to that question.

Mr. WESTFIELD. Thank you, Mr. Ankeny.

Senator Hayden, there are four increases we are asking for.

COAL DUST PROBLEM STUDY

The first is to study the coal dust problem in coal mines. We are asking for a $370,000 increase, which will include 12 additional employees.

Mechanized equipment, particularly continuous mining machines that grind the coal out of solid veins without blasting, has introduced a new hazard in coal mining. This is in the form of large amounts of extremely fine float-coal dust that is deposited on top of the rock dust for long distances in return air courses in our mines.

This fine coal dust is definitely explosive. Research will be directed toward collecting or suppressing the dust at its source, or toward

developing means of rendering such dust inert so that it will not propagate an explosion.

In the last three major disasters we have had in coal mines this float-coal dust has carried the explosion much farther than it would be normally. In some cases it resulted in the loss of additional lives. We have used rock dust to render coal dust nonexplosive for many years, using the standard that had been established before, which was that if we had 65 percent incombustible material we could prevent the propagation of an explosion.

We find this is not true at the present time. We find float-coal dust will explode when the ratio of incombustible is even higher than 80 percent. So, if we are going to prevent major disasters, and particularly propagation of the explosion, we have to come up with a solution to this problem.

Chairman HAYDEN. And that is what you are working on?

Mr. WESTFIELD. Yes, sir.

Chairman HAYDEN. How many additional personnel do you need during the fiscal year 1965 for your health and safety program, and for what purposes will you use them?

Mr. WESTFIELD. I think it would be better if I went on and explained—I don't want to get away from that answer, but I would like to explain the other items first.

Chairman HAYDEN. All right.

### MINE EXPLOSIONS STUDY

Mr. WESTFIELD. In these explosions we have had in the last 2 or 3 years, we have found the mining companies and the men themselves are not using the protective instruments they have at hand, particularly the safety lamp and the methane detector.

So, accumulations of methane have developed, ignitions have occurred, and a number of people have been killed. We have been working on a methane detector or a monitoring system that will detect the gas, one that will be placed on the mining machine so that in case the methane gets up to the established dangerous figure this monitor will automatically give an alarm. Then, if this is not heeded immediately, as the methane increases the monitoring system will provide an automatic cutoff of electric power. This will get away from the human failure.

We plan on speeding up this research by adding seven additional employees. Most of these will be technical and research people in our Pittsburgh station.

### VENTILATION SYSTEM RESEARCH

We also find in investigation of our explosions, that with the high speed development, as explained by Mr. Ankeny earlier, our present ventilation systems are not adequate.

In many cases methane has been liberated at a higher than normal rate, and we find this not only stops production but it also makes it very dangerous, in that accumulations of gases occur, are ignited, and cause explosions. We plan on doing some research work in mine ventilation, particularly in the face areas where these accumulations occur.

For this ventilation research we are asking for a $150,000 increase which will include four additional employees.

### Safety Educational and Training Program

The fourth increase, and the last, is for our safety educational and training program. In this case we are asking for an additional $140,000 with four more employees. It is recognized that the best method of preventing accidents is through education. We are now spending in our safety education training and work around a million dollars at the present time. We have been quite successful with the larger mining operations, but we find we are not reaching the smaller operators, particularly in the coal-mining areas. Many of these are out in isolated places, and we haven't been successful in getting these people out to attend accident-prevention training courses for officials, and also for miners, because there are no meeting places available.

### Mobile training units

In this instance, we plan on purchasing or having constructed two or three mobile training units that we can take directly to the locations of small mines and be able to train these people.

Chairman Hayden. Train them in one place and move to the next place?

Mr. Westfield. That is right. So, in connection with the 4 increases requested, we are asking for a total of 27 additional people.

### Construction Request

Chairman Hayden. The Bureau of Mines does not ask for appropriation of additional money in fiscal year 1965 for construction. However, it proposes to use an unobligated balance of $712,108 for design and preparation of engineering plans and specifications in connection with proposed new construction in Bruceton, Pa., and Frederick, Md.; and to complete the construction and equipment of the engineering and physical science building at Bartlesville, Okla. The statements submitted in support of this action will be printed in the record.

(The statement referred to follows:)

*Construction*

| | |
|---|---|
| Appropriation, 1964 | |
| Unobligated balance from prior years | $712,108 |
| Total available for obligation | 712,108 |
| Decreases: | |
| Construction and equipping of Bartlesville facilities | 248,662 |
| Research facility planning | 463,446 |
| Total | 712,108 |
| Budget estimate, 1965 | |

*Analysis by activities*

| Activity | Amount available, 1964 | Fiscal year 1965 | | | Total available, 1965 compared to total available, 1964 |
|---|---|---|---|---|---|
| | | Unobligated balance from prior years | Budget estimate | Estimated total available | |
| Laboratory facilities | $712,108 | | | | −$712,108 |

LABORATORY FACILITIES

The funds available in fiscal year 1964 will be used to design and prepare engineering plans and specifications in connection with proposed new construction at Bruceton, Pa., and Frederick, Md.; and to complete the construction and equipping of the engineering and physical science building at Bartlesville, Okla.

*Itemization of estimate*

| | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|
| Program and financing: | | | |
| Total obligations | $712,108 | | −$712,108 |
| Unobligated balance brought forward | −712,108 | | +712,108 |
| Appropriation | | | |
| OBLIGATIONS BY OBJECTS | | | |
| Bureau of Mines: | | | |
| 25 Other services | 157,066 | | −157,066 |
| 31 Equipment | 68,998 | | −68,998 |
| Total, Bureau of Mines | 226,064 | | −226,064 |
| Allocation to General Services Administration: | | | |
| 24 Printing and reproduction | 1,095 | | −1,095 |
| 25 Other services | 481,960 | | −481,960 |
| 32 Lands and structures | 2,989 | | −2,989 |
| Total, General Services Administration | 486,044 | | −486,044 |
| Total obligations | 712,108 | | −712,108 |

Chairman HAYDEN. What is the new construction proposed at Bruceton, Pa., and at Frederick, Md.?

BRUCETON, PA., FACILITY

Mr. ANKENY. With respect to this new construction, the planning money was authorized in the 1963 appropriation. And it consists so far as Bruceton is concerned of a new facility there to replace the station at 4800 Forbes Avenue in Pittsburgh, Pa. We plan in time, when this construction is authorized at Bruceton, to abandon the 4800 Forbes Avenue location.

FREDERICK, MD., LABORATORY

The construction at Frederick, Md., would consist of a new special-purpose laboratory designed to carry out research on more refined analytical methods of research on mineral materials. But no money for either of these projects has been asked for this year.

Chairman HAYDEN. How about Bartlesville?

Mr. THOMSON. At Bartlesville we propose to spend about $170,000 to complete the engineering facility for which funds were appropriated in 1961. This is primarily for the changeover of air conditioning and heating to the new powerplant; addition to the radio chemistry laboratory; and dust and fume hoods in the laboratories.

AUTHORIZATION FOR CONSTRUCTION

Chairman HAYDEN. What consideration have you given to securing specific authorization for the construction of a Bruceton facility, as was suggested last year by the House committee?

Mr. ANKENY. The specific authorization for Bruceton has not been asked for.

Has it, Mr. Zinner?

Mr. ZINNER. We have submitted draft language to the Department that proposes to specifically authorize this building. The Department is considering this in the light of what authorities might already exist. There is some question of whether existing authorities would apply to Bruceton or whether new legislation would have to be sought. This is the matter that is being examined at the moment.

ANALYTICAL RESEARCH EXPERIMENT STATION, FREDERICK, MD.

Nothing has been submitted to the Congress as yet.

Chairman HAYDEN. On September 9, 1963, Assistant Secretary Kelly sent proposed legislation to Congress to provide for the establishment of an analytical research experiment station. To date this bill has not been enacted. Are you asking for these funds even if this proposed legislation is not approved?

Mr. ANKENY. We wouldn't ask for the funds unless it would be approved; the bill has been introduced.

Senator BIBLE. Is that the Frederick, Md., facility?

Mr. ANKENY. Yes, sir.

Chairman HAYDEN. How far along are you with it?

Senator BIBLE. It has not been authorized, Mr. Chairman.

Mr. ANKENY. The bill has not yet been passed by Congress.

Senator BIBLE. May I ask a question there?

How about the planning money? Is this the one that is involved with the University of Maryland? Is this the same project?

Mr. ANKENY. No, this is a different project.

Senator BIBLE. This is a different project from the facility you have at the University of Maryland at College Park?

Mr. ANKENY. That is right.

Senator BIBLE. What was your reply as to the planning money for the Frederick, Md., project?

Mr. ANKENY. Mr. Rosenbaum.

ARCHITECT PLAN AWARDED

Mr. ROSENBAUM. An architect contract has been awarded. GSA is handling this for us. The architect is proceeding with the preparation of plans so that these will be complete when it is appropriate to ask for construction funds.

Senator BIBLE. You would go ahead and contract for the plans with what funds?

Mr. ROSENBAUM. Planning money was granted by the Congress a couple of years ago.

Senator BIBLE. Do you have special authorization to go ahead and plan for this facility? I assume you do not.

AUTHORIZATION FOR PLANNING

Mr. ANKENY. Not specific authorization. There was a question as to just what authority we do have. From past legislative history of the Bureau of Mines' authority for construction it looks very much like we do have authority to build two or possibly three buildings. Yet the validity of this has been questioned because it is an old authority that dates back a good many years.

Senator BIBLE. I would hope the staff would go into this, Mr. Chairman, because it seems just a little bit ironical to me that they are asking for planning money before we are even authorized a certain facility.

Suppose they don't authorize it, then you have expended the planning money, isn't that right?

Mr. ANKENY. The question of authority was raised after the Congress granted us the money to proceed with the planning of this building.

Chairman HAYDEN. Congress gave you money before they authorized the projects?

Mr. ANKENY. Before this was a specific authorization. We asked for this money on the basis of a blanket authorization that authorized a number of facilities. And this number of facilities has never—this authorization for the number of facilities has never been entirely used by the Bureau of Mines in its construction program.

BUREAU FACILITIES LOCATIONS AND FUNCTIONS

Senator BIBLE. At that point, Mr. Chairman, before you move into the "General administrative expenses" questions, I would like to have you supply for the record, Mr. Ankeny, the total number of Bureau of Mines' facilities that you have in the 50 States, where they are located, what their function is—I am directing this primarily to the minerals and metals rather than to the coal and shale side of your responsibility—but I would like to know where each of them are located, how many employees you have at each of them, what their area of responsibility is, because, as you know—I have discussed this with you a number of times, and it seems to me that within the framework of the Bureau of Mines we have adequate facilities in many areas of the United States rather than building additional facilities.

I know this is true in Nevada. I can't speak for Arizona, but we have facilities there that are not fully occupied or fully utilized. And I would like to have you supply me at your earliest possible convenience this information. I don't want to burden the record with it now.

And you are free to make any comment you want.

Mr. ANKENY. We would be happy to do that. We have developed a long-range building program, and we would be happy to supply you with a copy of this long-range program.

BUREAU OPERATIONS OUTSIDE THE COAL INDUSTRY

Senator BIBLE. One of the main problems in the area of minerals and metals particularly is that it is at a somewhat general low ebb. I mean gold and silver and copper, is so-so, and lead and zinc is deplorable. And you look to your radium and your oil and gas revenues to somewhat justify your requests for increases. But I would like to see a complete tabulation of all of the Bureau of Mines' operations, outside of the coal industry that you have under your jurisdiction, and where they are located, and how many people you employ, and what their assigned responsibility is.

Mr. ANKENY. I would be very happy to supply that.

Senator BIBLE. I would not expect you to furnish that right out.

(The material referred to follows:)

*Bureau of Mines*

METALLURGY RESEARCH

| Location | Personnel | Activity |
|---|---|---|
| Tuscaloosa, Ala | 30 | Primary: Mineral dressing of industrial minerals; heavy liquid beneficiation techniques.<br>Auxiliary: Development of thermodynamic data in specified areas. |
| Tucson, Ariz | 11 | Mineral beneficiation, primarily copper ores. |
| Berkeley, Calif | 13 | Development of thermodynamic data of inorganic materials. |
| Minneapolis, Minn | 60 | Primary: Iron ore beneficiation and preparation; fundamentals and practice of agglomerating, sintering, and pelletizing ores.<br>Auxiliary: Manganese ore processing. |
| College Park, Md | 115 | Primary: Physics of nonmetal refractories; secondary metals recovery and refining, principles of electrochemistry; bacteria in metallurgical processes; techniques of instrumental analysis; cost estimation and process evaluation.<br>Auxiliary: Process simulation; principles of electrostatic and magnetic separation; corrosion of metals and alloys. |
| Rolla, Mo | 91 | Primary: Physical metallurgy of steels, light metals, and base metals; vapor pressure measurements.<br>Auxiliary: Pyrometallurgy processing; physical properties of minerals, metals and alloys; vapor phase plating technology; mineral dressing services; oxidation of metals and alloys. |
| Reno, Nev | 110 | Primary: Molten salt electrowinning and electrorefining of metals and alloys. |
| Boulder City, Nev | 85 | Auxiliary: Techniques in neutron activation analysis; analytical techniques for rare-earths metals and compounds; processing metallurgy of alumina, titania and rare-earth metals; evalution of Bureau research products. |
| Bruceton, Pa | 89 | Primary: Iron smelting.<br>Auxiliary: Iron and steel processing and testing. |
| Albany, Oreg | 208 | Primary: Halogenation technology; reduction of metallic oxides and halides; melting and casting technology; physical metallurgy of reactive and refractory metals.<br>Auxiliary: Fabrication and utilization of ceramic materials; mineral dressing research and services; electric furnace processes; high energy forming of metals and alloys; development of thermodynamic data in specific areas. |
| Norris, Tenn | 34 | Primary: Mineral synthesis.<br>Auxiliary: Refractory hard materials. |
| Salt Lake City, Utah | 112 | Primary. Hydrometallurgy process development—chemical extraction and recovery; aqueous electrolysis and electrorefining of metals and alloys.<br>Auxiliary: Mineral beneficiation and process development; flotation fundamentals; pyrometallurigical processes; radiotracer technology. |

*Bureau of Mines*—Continued

MINING RESEARCH

| Location | Personnel | Activity |
|---|---|---|
| Spokane, Wash | 21 | Research in artificial stabilization of underground openings: design and development of support members for underground openings. |
| Reno, Nev | 10 | Emphasizes research to develop engineering and scientific principles applicable to the design of efficient open-pit slopes. |
| Denver, Colo | 38 | Research in rock mechanics applied to ground stabilization and control; the development of engineering principles and mathematical techniques applicable to the exploration, development, and operational problems of mining. |
| Minneapolis, Minn | 58 | Basic and applied research in rock disintegration, and on the geologic and engineering aspects of water control in mining; research in the fundamental aspects of mine rock behavior. |
| College Park, Md | 29 | Research in the broad field of physics as related to all phases of mineral mining; fundamental studies in blasting; instrumentation development for measurement of rock pressures. |
| Pittsburgh, Pa | 17 | Research in materials handling, environmental control with respect to acid-mine water drainage and methane drainage; laboratory and applied research in disintegration by hydraulic mining; basic research in the study of coal. |

## General Administration Expenses

Chairman Hayden. The fiscal year 1965 estimates for "General administration expenses" is $1,425,000, a reduction of $35,000 in the amount appropriated for fiscal year 1964.

The justification will be placed in the record.

(The material referred to follows:)

*General administrative expenses*

| | |
|---|---|
| Appropriation, 1963 | $1,390,950 |
| Appropriation, 1964 | 1,460,000 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | |
|---|---|
| To provide for increased pay costs for fiscal year 1964 positions | +40,000 |
| Increased efficiency due to reorganization | −75,000 |
| Net decrease, 1965 | −35,000 |
| Budget estimate | 1,425,000 |

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 | | |
|---|---|---|---|---|
| | | Total appropriation | Transfers [1] | Amount available |
| General administrative expenses | $1,359,683 | $1,460,000 | | $1,460,000 |
| Unobligated balance lapsing | 31,267 | | | |
| Total | 1,390,950 | 1,460,000 | | 1,460,000 |

[1] Represents transfers to General Services Administration unless otherwise footnoted.

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| General administrative expenses | $1,359,683 | $1,460,000 | $1,425,000 | −$35,000 | +$40,000 | −$75,000 |
| Unobligated balance lapsing | 31,267 | | | | | |
| Total | 1,390,950 | 1,460,000 | 1,425,000 | −35,000 | +40,000 | −75,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*General administrative expenses*

| | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| General administrative expenses | $1,359,683 | $1,460,000 | $1,425,000 | −$35,000 | +$40,000 | −$75,000 |

GENERAL ADMINISTRATIVE EXPENSES

The estimate for 1965 is $1,425,000, a decrease of $35,000, accounted for as follows:

(1) A program decrease of $75,000 resulting from increased efficiency due to reorganization and consolidation of administrative functions of the Bureau of Mines.

(2) An increase of $40,000 to cover additional pay costs of fiscal year 1964 positions.

In a recent reorganization of the Bureau of Mines six offices performing administrative services were replaced with two larger offices. These offices are located at Pittsburgh, Pa., and Denver, Colo. This consolidation has increased efficiency and provided sound overall management at lower costs.

*Plan of work.*—The estimate provides for the expenses of the immediate office of the Director and the administrative functions in the Washington office, except for certain services performed for field activities of the Health and Safety and Coal Division. The two area administrative offices also are financed from this fund to the extent necessary to cover the salaries and expenses of the chiefs and their key administrative staffs. All other expenses generally classified as administrative, required to carry on the activities of the technical research staffs, will be charged to program funds.

The Office of the Director provides executive direction in conducting programs designed to conserve and develop mineral resources and to promote safety and healthful working conditions in the mineral industries.

The administrative functions, headed by an Assistant Director, Administration, provides administrative management advice and assistance to Bureau managers on administration and management matters; and provides personnel, budget, management analysis, finance, auditing, procurement, property management, data processing, and employee relations services for the Bureau as a whole.

The Bureau's proposed 1965 administrative program totals $3,200,000 of which $1,425,000 is requested under the "General administrative expenses" appropriation.

Following is a comparison of the program:

*Obligations*

| | 1963 | 1964 | 1965 |
|---|---|---|---|
| General administrative program | $2,975,855 | $3,200,000 | $3,200,000 |
| Share of participating program activities | 1,616,172 | 1,740,000 | 1,775,000 |
| General administrative expenses appropriation | 1,359,683 | 1,460,000 | 1,425,000 |

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $1,359,683 | $1,460,000 | $1,425,000 | −$35,000 |
| Unobligated balance | 31,267 | | | |
| Appropriation | 1,390,950 | 1,460,000 | 1,425,000 | −35,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 1,093,844 | 1,194,000 | 1,150,000 | −44,000 |
| 12 Personnel benefits | 82,395 | 90,000 | 87,000 | −3,000 |
| 21 Travel and transportation of persons | 42,939 | 54,000 | 58,000 | +4,000 |
| 22 Transportation of things | 2,378 | 2,000 | 2,000 | |
| 23 Rent, communications, and utilities | 21,784 | 23,000 | 23,000 | |
| 24 Printing and reproduction | 29,401 | 27,000 | 29,000 | +2,000 |
| 25 Other services | 46,692 | 35,000 | 30,000 | −5,000 |
| 26 Supplies and materials | 19,516 | 17,000 | 24,000 | +7,000 |
| 31 Equipment | 20,522 | 18,000 | 22,000 | +4,000 |
| 32 Lands and structures | 212 | | | |
| Total obligations | 1,359,683 | 1,460,000 | 1,425,000 | −35,000 |

Chairman HAYDEN. Please comment on the proposed use of this fund.

Mr. THOMSON. This fund provides for the general administration of the Bureau. This includes the immediate office of the director, and the various administrative functions including budgeting, accounting, personnel, auditing, property management, and other administrative activities. These are the normal functions carried on in all agencies.

## EXPLANATION OF THE ADMINISTRATION PROVISIONS

Chairman HAYDEN. We will place in the record your statement explaining the administrative provisions pertaining to the Bureau of Mines.

(The statement referred to follows:)

### PURCHASE OF PASSENGER MOTOR VEHICLES

The Bureau of Mines requests authority to replace 75 passenger motor vehicles. The vehicles requested for replacement represent about 21 percent of the Bureau's fleet of passenger motor vehicles and all meet the Bureau of the Budget standards for replacement on the basis of age or mileage. The replacement of these vehicles is necessary in the interest of economy and efficiency since most of the Bureau's vehicles are subject to use under adverse conditions due to poor roads in mountainous areas and under all types of weather conditions in the various field areas.

TRANSPORTATION OF STUDENTS

Due to the remoteness of the Bureau's helium plants and some of the synthetic liquid fuels installations, it is necessary to furnish the children of employees with transportation to areas where adequate school facilities are available.

CONTRIBUTIONS

Various industrial organizations have expressed interest in many phases of the Bureau's activities and are at times willing to contribute funds, experienced personnel, special equipment, etc., toward accomplishing certain objectives useful to industrial purposes. The Bureau endeavors to cooperate with industry wherever possible and authorization to accept such contributions is a distinct aid in furthering such cooperation.

SALE OF METALS AND MINERAL PRODUCTS

In some of the metallurgical pilot plants of the Bureau quantities of special metals may be manufactured which might be of value to industrial concerns. Funds received from the sale of such products would be covered into miscellaneous receipts.

AUTHORIZATION PURSUANT TO HELIUM ACT OF 1960

Chairman HAYDEN. There will be placed in the record a statement submitted in support of a request that the Bureau of Mines be authorized to use $20 million additional borrowing authority pursuant to the Helium Act Amendments of 1960, to be made available without fiscal year limitation.

(The statement referred to follows:)

HELIUM FUND

The Bureau of Mines requests that $20 million additional borrowing authority, pursuant to section 12(a) of the Helium Act Amendments of 1960 (Public Law 86-777), be made available without fiscal year limitation for the purpose of carrying out its responsibilities under the act for helium production, distribution, conservation, and research.

The $20 million additional borrowing authority is needed, in addition to income received from the sale of helium and related services, to finance the helium program in fiscal year 1965, including the operation and maintenance of the five Government-owned production plants and distribution facilities, the helium research program, purchases of helium produced for conservation, and the related supporting facilities and services.

The five private plants producing helium for conservation have all operated successfully in fiscal year 1964, and it is expected that they will operate continuously throughout fiscal year 1965. These plants were financed, built, and operated by four companies which have long-term (22-year) contracts under which the Government purchases helium for conservation. It is estimated that these plants will produce 3.7 billion cubic feet of helium in fiscal year 1965 which will be acquired by the Bureau of Mines and transported in a 425-mile Government pipeline system to the Cliffside field for storage underground until needed in the future.

The five Government-owned plants will continue operating to produce an estimated 787 million cubic feet of helium, 600 million cubic feet of which will be required to supply the estimated needs of Federal and non-Federal consumers. The remaining 187 million cubic feet of helium will be put in underground storage in the Cliffside gasfield along with helium purchased under long-term contracts with private producers.

The Bureau of Mines will also continue its program of research aimed at achieving a wiser and more efficient utilization of our limited natural helium resources. This research will include studies on the properties of helium and helium mixtures, a continuing survey of the helium resources of the United States, and investigations looking to improvements in methods of producing, transporting, and using helium.

Two important changes appear to be imminent in the helium program. One of these involves the distribution of helium—particularly shipments of helium to Federal agencies and their contractors. The Bureau of Mines has agreed to

attempt to negotiate an agreement with the Department of Defense whereunder the Bureau would assume the responsibility for operating and maintaining in fiscal year 1965 three helium redistribution facilities now operated by the Navy at Lakehurst, N.J.; Santa Ana, Calif.; and Moffett Field (near San Francisco), Calif. Both the Bureau of Mines and the Navy are convinced that such an arrangement would achieve some immediate savings to the Government in the costs of helium distribution to the Federal agencies, and open up the possibility of even greater savings in the future. Pending an agreement between the Bureau of Mines and the Department of Defense, this development must be considered to be tentative, and neither the cost of operating the facilities nor the income to be derived from them are included in the budget estimate. However, the Bureau is not contemplating any substantial capital expenditures at the facilities, and the revenue derived from the services afforded by the facilities will be made to offset the current expenditures. An adjustment in any personnel limitation applicable to the Bureau of Mines helium program would be needed to accommodate the addition of about 55 positions in the Bureau in lieu of the same number of positions now occupied by Navy employees at the facilities.

The second important development is an increasing demand for liquid helium—particularly within the NASA. Coupled with a possibility of savings in freight costs through the transportation of liquid helium instead of gaseous helium, this development could lead to the need for a liquid helium production and transportation capability within the Bureau of Mines in fiscal year 1965. Funds for such a capability are therefore included in the budget in order that the plans of the NASA for liquid helium will not be impeded by any uncertainty in this regard.

EXPLANATION OF ADJUSTMENT IN OBJECT CLASSIFICATION, FISCAL YEAR 1964

When the 1964 budget for the helium activity was being prepared, the expenses of operating and maintaining their motor pool were shown under object classes 25 (other services) and 26 (supplies and materials). Thereafter the vehicles were transferred to the General Services Administration and in pursuance of Budget Bureau Circular A–12, charges for their rental are properly chargeable to object class 21 (travel).

Since the rental charges were not included in the budget as part of the $48,000 estimated for travel, an adjustment was made between the three object classes involved so as to increase object class 21 by $13,800 to $61,800, and decrease object classes 25 and 26 by a corresponding amount. The overall budget was not increased and no additional travel is contemplated. Future budgets will reflect these charges under the proper classification.

*Helium fund*

| | |
|---|---|
| Estimated income, 1964: | |
| Operations | $21,802,000 |
| Borrowing authority | 6,000,000 |
| Estimated income, 1965: | |
| Operations | 23,359,000 |
| Borrowing authority | 20,000,000 |

*Financial summary*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 |
|---|---|---|---|
| Income and expenses (funded): | | | |
| Income: | | | |
| Sale of helium to Government agencies | $16,153,000 | $14,534,000 | $15,330,000 |
| Sale of helium to non-Federal consumers | 4,867,000 | 5,166,000 | 5,670,000 |
| Other income | 2,374,000 | 2,102,000 | 2,359,000 |
| Total income | 23,394,000 | 21,802,000 | 23,359,000 |
| Expenses: | | | |
| Manufacturing expenses | 4,699,000 | 4,344,000 | 4,658,000 |
| Administrative and other expenses | 1,071,000 | 1,253,000 | 1,348,000 |
| Research | 434,000 | 541,000 | 647,000 |
| Total expenses | 6,204,000 | 6,138,000 | 6,653,000 |
| Net income (funded) | 17,190,000 | 15,664,000 | 16,706,000 |
| Unobligated balance brought forward: | | | |
| Cash (operating fund) | 3,638,000 | 9,180,000 | 1,145,000 |
| Borrowing authority | 10,000,000 | 16,000,000 | 8,000,000 |
| Borrowing authority (new) | 6,000,000 | 6,000,000 | 20,060,000 |
| Changes in selected resources | 2,342,000 | 169,000 | 275,000 |
| Funds repaid to Treasury | −6,000,000 | | |
| Total funds available | 33,170,000 | 47,013,000 | 46,126,000 |
| Capital outlay: | | | |
| Crude helium for underground storage | 4,268,000 | 36,045,000 | 42,074,000 |
| Land, structures and equipment | 1,999,000 | 1,733,000 | 2,094,000 |
| Pipeline construction | 1,723,000 | 90,000 | |
| Total capital outlay | 7,990,000 | 37,868,000 | 44,168,000 |
| Unobligated balance carried forward: | | | |
| Cash (operating fund) | 9,180,000 | 1,145,000 | 1,958,000 |
| Borrowing authority | 16,000,000 | 8,000,000 | |
| Total | 25,180,000 | 9,145,000 | 1,958,000 |

THE 1965 PROPOSED CHANGES

Chairman HAYDEN. Would you please relate for the committee your experience with the program for the past year and set forth any proposed changes in the fiscal year 1965?

Mr. ANKENY. Mr. Henry Wheeler, Assistant Director for Helium, will make this explanation.

Mr. WHEELER. The helium program is going along as has been authorized by the Congress, and as we have contemplated, with about one exception.

First let me tell you what we have been doing. We have been producing a little less than 800 million cubic feet of helium a year in our own facilities, and we have been selling about 600 million cubic feet of helium a year, with the difference of about 200 million cubic feet being conserved for the future from our own plants.

ANTICIPATED PURCHASES UNDER CONTRACTS

In addition, in the present year we will buy from five private plants under our existing contracts about 3 billion cubic feet of helium, which will also be stored to meet future requirements. The exception that I spoke of earlier is that the private plants have not produced as much helium for sale to us as we had anticipated. There are several reasons for this—one being that they took a little longer to construct than we anticipated. Consequently they came on stream at a later date

than we anticipated, and a couple of the plants have had operating problems which prevented them from getting up to capacity production as quickly as we had anticipated. And for these reasons we have not purchased as much helium for conservation as we had thought we would, and we have not expended as much money for that purpose as we had anticipated.

Chairman HAYDEN. Is your outfit the sole purchaser? Is there anybody else buying it from these private companies?

Mr. WHEELER. Nobody else is buying from the private companies with whom we have contracts. There is one private helium producer in the United States, Kerr-McGee Oil Industries, Inc., with a plant at Navajo, Ariz. This plant is producing and selling helium to the civilian market and without regard to our program.

Chairman HAYDEN. Are they finding a market for all they produce?

Mr. WHEELER. My information is that they are selling about half as much as they could produce.

### CLIFFSIDE GASFIELD STORAGE

Chairman HAYDEN. If the information is not classified, how much helium will you purchase from private helium producers to store in the Cliffside gasfield?

Mr. WHEELER. In the coming year we expect to purchase about 3.7 billion cubic feet, in 1965.

Chairman HAYDEN. You state that this borrowing authority is needed in addition to income received from the sale of helium and related services in order to finance the helium program in fiscal year 1965. What is your total expected program during the coming fiscal year, and how much income do you expect to receive from the sale of helium and related services?

### ANTICIPATED RECEIPTS FROM SALE OF HELIUM

Mr. WHEELER. We expect to receive about $23.3 million in 1965, and we expect to spend, I think—these numbers are all in the budget, Senator, I will have to look in our budget to get them.

Chairman HAYDEN. Fill it in for the record.

Mr. WHEELER. I will have to fill it in for you.

(The information referred to follows:)

*Estimate of income and expenditures, fiscal year 1965*

[In thousands]

| | |
|---|---|
| Income: | |
| Helium sales | $21,000 |
| Other income | 2,359 |
| Total | 23,359 |
| Expenditures: | |
| Operating costs | 6,653 |
| Helium stored underground | 42,074 |
| Capital outlay | 2,094 |
| Total | 50,821 |

COST OF OPERATING HELIUM PLANTS AND FACILITIES

Chairman HAYDEN. What is the cost of operating and maintaining the five Government-owned production plants and distribution facilities?

Mr. WHEELER. The cost of operating our own facilities is approximately $6 million.

Chairman HAYDEN. All of your own?

Mr. WHEELER. All five plants. This includes our costs of administration, but does not include $647,000 that will be spent on research in fiscal year 1965.

Chairman HAYDEN. Any questions, Senator.

Senator BIBLE. Only one, Mr. Chairman.

EXTRACTIVE RESEARCH

You say on page 57 of your justification, when you talk about—this is under the minerals and methane, you say:

> Research will be conducted in laboratories in the States of Maryland, Minnesota, Colorado, Nevada, Pennsylvania, and Washington; however, the work at these sites will constitute only a part of the effort. The major effort will be in operating mines throughout the United States in cooperation with the mining companies, utilizing the mines as open pit and underground laboratories. This active cooperative research will be at mines in Idaho, Montana, Wyoming, Utah, Nevada, Arizona, New Mexico, Colorado, Missouri, Michigan, Pennsylvania, and possibly other States where operating mines can be utilized as research sites.

What do you specifically do in that area of work? Is it a subject of extractive research? I think you are requesting something in the neighborhood of $2 million, just about the same as last year.

Mr. ROSENBAUM. This extractive research is a term we use for mining research. In the State of Nevada we have a contract with Kennecott Copper Co. We are studying the stability of open-pit slopes. If you can assure by improved planning and engineering design that you can have a stable slope on a 1- or 2-percent steeper pitch, then you make millions of tons of additional ore available.

COOPERATIVE PROGRAM IN RESEARCH

Senator BIBLE. Give me an example of how that cooperative program in research works out. Does Kennecott Copper Co. put up 50 percent of the money and the Federal Government 50 percent? How does it work?

Mr. ROSENBAUM. Kennecott Copper Co. provides the site, and we work together with them in formulating a program.

Senator BIBLE. What does the Government supply?

Mr. ROSENBAUM. We provide two or three engineers on design, instrumentation and data gathering. The actual work is done by Kennecott Copper Co. They conduct the experiments with their people and equipment. They drill the holes, put in the explosives, and move the rocks.

Senator BIBLE. You signed a cooperative agreement on this?

Mr. ROSENBAUM. Yes.

Senator BIBLE. Is this all reduced to writing?

SIGNED AGREEMENTS

Mr. ROSENBAUM. These are signed cooperative agreements, and the questions of publications and responsibility are ironed out. In other mines we may have cooperative agreements looking to the development of mining machinery. In Montana we are studying the development of an experimental mining machine for phosphate rock.

The company supplies the operators, and they move the ore. We do the engineering, compile data, evaluate data, and write the report for publication.

By these cooperative studies the mine itself becomes our laboratory.

PURPOSE OF THE AGREEMENT

Senator BIBLE. What is the end result of the cooperative agreements? Do you produce a paper available to industry saying, this is what we found out about open pit mining at the open pit of the Kennecott Copper Co.?

Mr. ROSENBAUM. That is correct.

Senator BIBLE. And this is made available to the industry?

Mr. ROSENBAUM. Yes.

Senator BIBLE. Made available to anybody that wants it?

Mr. ROSENBAUM. This is the heart of all our cooperative agreement, that the findings become public.

Senator BIBLE. Thank you, very much.

Chairman HAYDEN. Is there anything further?

If not, we thank you for your presence.

The committee will stand in recess until 10 a.m., Wednesday, February 26, 1964, when we will take up the Office of Territories, Office of Mineral Exploration, and Office of Coal Research.

(Whereupon, at 12:30 p.m., Tuesday, February 25, 1964, the subcommittee adjourned, to reconvene at 10 a.m., Wednesday, February 26, 1964.)

# DEPARTMENT OF INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1965

WEDNESDAY, FEBRUARY 26, 1964

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, D.C.*

The subcommittee met at 10 a.m., pursuant to recess, in room 1223, New Senate Office Building, Hon. Carl Hayden (chairman) presiding.

Present: Chairman Hayden, Senators Bible, Byrd, McGee, Mansfield, Bartlett, Mundt, and Young.

## DEPARTMENT OF THE INTERIOR

### OFFICE OF TERRITORIES

**STATEMENTS OF MR. RICHARD F. TAITANO, DIRECTOR; HON. M. F. L. GUERRERO, GOVERNOR OF GUAM; MR. ANTONIO B. WON PAT, SPEAKER, LEGISLATURE, TERRITORY OF GUAM; HON. H. REX LEE, GOVERNOR OF AMERICAN SAMOA; MR. JOSEPH F. SCREEN, DIRECTOR OF ADMINISTRATIVE SERVICES, AMERICAN SAMOA; HON. M. W. GODING, HIGH COMMISSIONER, TRUST TERRITORY OF THE PACIFIC ISLANDS**

#### ADMINISTRATION OF TERRITORIES

Chairman HAYDEN. The committee will be in order.

We will first hear from the Office of Territories. At this time, I will place in the record the fiscal year 1965 budget estimate for Administration of Territories which is $18,814,000, an increase of $5,815,000 over the amount appropriated for this purpose in fiscal year 1964.

This increase results from a budget estimate of $10 million for Guam rehabilitation, and a decrease in the requirements of American Samoa of over $4 million.

(The statement referred to follows:)

#### HIGHLIGHT STATEMENT

The major purpose of the Office is to carry out its responsibility to assist in guiding the growth of the non-self-governing areas toward full economic and political maturity. Included in this program are the Virgin Islands, Guam, and American Samoa. The activity of the Trust Territory of the Pacific Islands which is also under the supervision of the Office of Territories is reported separately in this presentation. In addition, the Office of Territories has administrative jurisdiction over Canton and the neighboring islands. All of these areas are in different stages of political and economic development. They are encouraged to and are constantly moving toward a greater degree of home rule and economic development.

The budget year program for Guam provides for continuation of the rehabilitation program of all major island facilities under the Guam Rehabilitation Act, Public Law 88–170, approved November 4, 1963. This program is scheduled to begin in the current fiscal year if supplemental funds requested are made available.

Although the budget year estimate for American Samoa contemplates a sharp decrease in construction expenditures from the anticipated level for 1964, continued emphasis is being placed on programs for education, public health, and communications.

INTRODUCTION

The Office promotes economic and political development in territorial and trusteeship areas under U.S. jurisdiction. It originates and implements Federal policy, guides and coordinates certain operating programs, provides information and advice, and participates in foreign policy matters concerning the territories. In addition, the Office represents the Governors of the Virgin Islands, Guam, and American Samoa in Washington; and assists the Virgin Islands Corporation.

*Administration of territories*

| | |
|---|---|
| Appropriation, 1963 | $13,768,000 |
| Pay cost supplemental | 28,500 |
| Total available, 1963 | 13,796,500 |
| Total available, 1964 | 13,000,000 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | |
|---|---|
| Virgin Islands: | |
| To provide for increased pay costs for fiscal year 1964 positions in the Governor's and Comptroller's offices | +6,700 |
| Increased operating costs in the Governor's and Comptroller's offices | +1,300 |
| | +8,000 |
| Guam: | |
| To provide for increased pay costs for 1964 positions in the Governor's office | +900 |
| Increased operating costs, Governor's office | +100 |
| To continue the Guam rehabilitation program scheduled to begin in the current fiscal year if supplemental funds are made available | +10,000,000 |
| | +10,001,000 |
| American Samoa: | |
| Increased pay costs for 1964 positions | +2,900 |
| Increased operating costs | +11,289 |
| Decrease in grants due to completion of the 3-year crash rehabilitation program in the current year | −4,253,189 |
| | −4,239,000 |
| Canton Island administration: | |
| Increased pay costs for fiscal 1964 positions | +900 |
| Increased operating costs | +100 |
| | +1,000 |
| General administration: | |
| Increased pay costs for fiscal 1964 positions | +6,600 |
| Increased operating costs | +36,400 |
| | +43,000 |
| Net increase, 1965 | 5,814,000 |
| Budget estimate, 1965 | 18,814,000 |

*Analysis by activities*

| Activity | Amount available, fiscal year 1963 | Amount available, fiscal year 1964 | Estimate, fiscal year 1965 | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. Virgin Islands: | | | | | | |
| (a) Governor's office | $66,737 | $90,000 | $92,000 | +$2,000 | +$1,700 | +$300 |
| (b) Legislative expense | 11,940 | 13,000 | 13,000 | | | |
| (c) Comptroller's office | 157,598 | 179,000 | 185,000 | +6,000 | +5,000 | +1,000 |
| 2. Guam: | | | | | | |
| (a) Governor's office | 79,314 | 83,000 | 84,000 | +1,000 | +900 | +100 |
| (b) Legislative expense | 24,675 | 24,000 | 24,000 | | | |
| (c) Loans | | | 6,539,000 | +6,539,000 | | +6,539,000 |
| (d) Grants | | | 3,461,000 | +3,461,000 | | +3,461,000 |
| 3. American Samoa: | | | | | | |
| (a) Governor's office | 117,288 | 161,000 | 168,489 | +7,489 | +1,900 | +5,589 |
| (b) Legislative expense | 29,950 | 35,000 | 30,600 | −4,400 | | −4,400 |
| (c) Chief justice and high court | 61,806 | 78,000 | 89,100 | +11,100 | +1,000 | +10,100 |
| (d) Grants | 12,807,400 | 12,002,000 | 7,748,811 | −4,253,189 | | −4,253,189 |
| 4. Canton Island administration | 15,350 | 21,000 | 22,000 | +1,000 | +900 | +100 |
| 5 General administration | 312,266 | 314,000 | 357,000 | +43,000 | +6,600 | +36,400 |
| Unobligated balance lapsing | 112,176 | | | | | |
| Total | 13,796,500 | 13,000,000 | 18,814,000 | +5,814,000 | +18,000 | +5,796,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

## 1. Virgin Islands, $290,000

| | |
|---|---|
| (a) Governor's office | $92,000 |
| (b) Legislative expense | 13,000 |
| (c) Comptroller's office | 185,000 |

*(a) Governor's office, $92,000*

The estimate represents an increase of $2,000 over the amount available in the current year, $1,700 of which is for increased pay costs. The expenses of this office are distributed as follows:

| | |
|---|---|
| Personnel compensation and benefits | $88,700 |
| Contractual services and supplies | 3,300 |

*(b) Legislative expense, $13,000*

The funds requested are required to pay the salaries of 11 legislators at $600 per annum, in addition to their per diem and travel expenses, as authorized in the Revised Organic Act of the Virgin Islands.

*(c) Comptroller's office, $185,000*

The estimate represents an increase of $6,000 over the amount available in 1964, $5,000 for increased pay costs and $1,000 for miscellaneous operating costs. Expenditures of the office are distributed as follows:

| | |
|---|---|
| Personnel compensation and benefits | $167,600 |
| Travel and transportation of persons | 5,000 |
| Transportation of things | 2,700 |
| Rent, communications, and utilities | 3,400 |
| Printing and reproduction | 100 |
| Other services | 2,000 |
| Supplies and materials | 2,000 |
| Equipment | 2,200 |
| Total estimate | 185,000 |

## 2. Guam, $10,108,000

| | |
|---|---|
| (a) Governor's office | $84,000 |
| (b) Legislative expense | 24,000 |
| (c) Loans | 6,539,000 |
| (d) Grants | 3,461,000 |

(a) *Governor's office $84,000*

The estimate is based on the fact that operating requirements for this activity will continue at the current year level. The small increase of $1,000 will provide for increased pay costs and other operating expenses.

(b) *Legislative expense, $24,000*

The estimate for this activity is the same as for the current year. The legislature meets annually in regular sessions for 60 days, and in special sessions not to exceed 14 days for any one session, as authorized under section 18 of the organic act. The estimate covers the expense of 21 members at the rate of $15 per day for each member.

(c) *Loans, $6,539,000*

(d) *Grants, $3,461,000*

*Public law.*—The Guam rehabilitation bill provides for a grant and loan program not to exceed $45 million for the rehabilitation of the territory of Guam. Such rehabilitation is needed (1) to replace public facilities destroyed as a result of Typhoon Karen in November of 1962 and (2) to replace wornout World War II temporary public facilities with more modern and efficient construction to provide a setting whereby Guam may develop its social and economic potential to a greater level of self-sufficiency.

The act provides that all projects other than water, power, and telephone service, for which funds are appropriated under its authorization, will have 50 percent of its costs returned to the U.S. Treasury; for water, power, and telephone projects, the appropriations will be in the form of 100 percent loans. All moneys returned to the Treasury will be at an interest rate fixed by the U.S. Treasury and will be amortized over a period of 30 years.

This is the second phase of the program, the first being completed under a fiscal year 1964 supplemental appropriation, which primarily funded projects required because of the destruction by Typhoon Karen. This fiscal year 1965 budget request of $10 million is fully concerned with the rehabilitation phase of the Guam program which will develop the Guam community into one comparable to mainland communities.

A breakdown of the estimate by project between loans and grants follows:

| Project | Loans | Grants | Total estimate |
|---|---|---|---|
| Sewer system and drainage | $1,947,500 | $1,947,500 | $3,895,000 |
| Air terminal | 425,000 | 425,000 | 850,000 |
| College of Guam | 470,000 | 470,000 | 940,000 |
| Village development | 568,500 | 568,500 | 1,137,000 |
| Commercial port of Guam | 50,000 | 50,000 | 100,000 |
| Water resources and distribution | 1,078,000 | | 1,078,000 |
| Power production and distribution | 2,000,000 | | 2,000,000 |
| Totals | 6,539,000 | 3,461,000 | 10,000,000 |

*Sewer system and drainage, $3,895,000*

This project provides for the construction of three badly needed sewer systems at an estimated total cost of $4,100,000. Since advance planning funds of $205,000 are being requested in a proposed 1964 supplemental, the balance of $3,895,000 is required in 1965 to complete the project. Only the city of Agana and the village of Agat are now served. With the rapidly increasing population, the use of septic tanks and cesspools on small urban lots is becoming a serious health hazard as well as a potential hazard to water supplies.

Cost breakdown is:

| | |
|---|---|
| Labor | $1,558,000 |
| Materials | 1,947,500 |
| Equipment | 389,500 |
| Total | 3,895,000 |

*Air terminal, $850,000*

This project is to provide a civilian air terminal building and facilities adjacent to the Naval Air Station, Agana, with unrestricted access by Route 10A, eliminating the necessity of passing naval security gates.

The project consists of a terminal building of 17,000 square feet, a parking area, and hardstands for planes with access to the naval air station runways.

Planning funds of $25,000 have been provided by the government of Guam.

| | |
|---|---|
| Labor | $344,250 |
| Material | 420,750 |
| Equipment | 85,000 |
| Total | 850,000 |

*College of Guam, $940,000*

With the expansion of the College of Guam to a 4-year institution, additional classroom and library space is essential. The estimate of $940,000 will provide for:

(a) *Classroom building, $435,000.*—Present enrollment is 320 full time and 1,700 in evening classes. Additional fourth-year classes will be operating in the next school year which will increase full-time enrollment 25 to 30 percent. Also, an increase of approximately 300 students from the trust territory is indicated in the next 2 years. Two additional classroom buildings will be required to take care of this anticipated enrollment increase, one provided for herein for the budget year, and the other to be included in the 1966 estimates. These buildings will be two story, of reinforced concrete, with a usable area of 19,000 square feet. The cost breakdown is:

| | |
|---|---|
| Labor | $209,000 |
| Materials | 171,000 |
| Equipment | 55,000 |
| Total | 435,000 |

(b) *Library building, $505,000.*—The present library building, covering 5,760 square feet and designed for a junior college, was originally partitioned off for needed administrative office space. It is essential that additional library space be provided if the institution is to receive full accreditation on a 4-year program.

This project covers construction of a one-story concrete structure of about 20,000 square feet, located in conformance with the master plan of the College of Guam and architecturally compatible with the present college buildings. This construction will also free the present inadequate library space for full utilization in connection with the expanded administrative functions.

The estimated cost of the new building is $25.25 per square foot, broken down as follows:

| | |
|---|---|
| Labor | $240,000 |
| Materials | 142,000 |
| Equipment (shelves only) | 43,000 |
| Air conditioning | 80,000 |
| Total | 505,000 |

*Village development, $1,137,000*

The estimate of $1,137,000 for 1965 provides for the second phase of this program, the total cost of which is estimated at approximately $12.1 million, $6 million of which is to be financed by the Guam rehabilitation bill. This budget contemplates the acquisition of existing lots and structures for Sinajana only.

*Commercial port of Guam, $100,000*

Guam's commercial port operations are being carried on in a limited area within the military boundaries of the U.S. Navy in inner Apra Harbor. This limited area restricts and congests the port operation, as well as inhibiting the development of industrial activity due to the lack of adjacent land. As in any island locale, Guam is thereby restricted in its economic growth unless proper port facilities and adjacent industrial areas are provided.

The improvements shall consist of berthing space and channel for three vessels, and backup land for marine-related industrial activities.

A joint Navy-government of Guam survey of the port area is now underway as a result of which the bed new location area for the commercial port outside the inner harbor will be selected. This survey is expected to be completed early in fiscal 1965. The government of Guam should be in a position to accomplish engineering plans for the new location. The sum of $100,000 is requested for the budget year.

*Water resources and distribution, $1,078,000*

This project is urgently needed to replace water mains of wartime material which are now causing excessive water losses. Losses in the areas are over 30 percent, and this replacement program will result in a substantial increase in the water supply to these specific areas.

Cost breakdown is:

| | |
|---|---|
| Labor | $431,976 |
| Materials | 539,000 |
| Equipment | 107,024 |
| Total | 1,078,000 |

*Power production and distribution, $2,000,000*

Electric power is essential to Guam's economic growth. The civilian population is estimated to be 80,000 by 1985 as compared to 45,000 at present. The commercial community is also expanding. Guam is now entitled to 14,500 kilowatts per day. This is expected to increase approximately as tabulated below. The Department of the Navy has been aware of the necessity of constructing additional generating capacity to meet Department of Defense and civilian needs.

At present two additional units are under construction by the Navy, which will increase the present generating capacity by 40,000 kilowatts per day, which will increase the government of Guam power allocation as noted below:

| Year | Estimated consumption (kilowatts) | Allocation (kilowatts) |
|---|---|---|
| 1963 | 16,200 | 14,600 |
| 1965 | 26,450 | 18,800 |
| 1970 | 30,800 | 23,850 |

The government of Guam has been requested to participate in the cost of Navy plant expansion to the extent of $3 million for the first increment, which has already been appropriated by the Guam Legislature, and $2 million which is estimated as government of Guam contribution for the second increment. This $2 million is now requested.

Guam is now in a position to finance a powerplant for civilian use only, and continuation of the present arrangement seems necessary.

## 3. American Samoa

*Summary of appropriations and grants*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| A. Direct appropriations: | | | | |
| 1. Governor's office | $117,288 | $161,000 | $168,489 | +$7,489 |
| 2. Legislative expense | 29,950 | 35,000 | 30,600 | −4,400 |
| 3. Chief justice and high court | 61,805 | 78,000 | 89,100 | +11,100 |
| Subtotal, direct appropriations | 209,043 | 274,000 | 288,189 | +14,189 |
| B. Grants: | | | | |
| I. Health, education, and welfare: | | | | |
| Samoan information | 14,012 | 29,703 | 29,703 | |
| Department of education | 1,155,924 | 2,207,581 | 2,773,785 | +566,204 |
| Medical services department | 818,892 | 1,593,178 | 1,217,553 | −375,625 |
| Public defender | 5,877 | 7,500 | 8,597 | +1,097 |
| Public safety and legal affairs | 132,838 | 220,322 | 267,246 | +46,924 |
| Local judicial | 5,630 | 9,450 | 9,600 | +150 |
| Civil defense | 7,186 | | 6,864 | +6,864 |
| Subtotal, health, education, and welfare | 2,140,359 | 4,067,734 | 4,313,348 | +245,614 |
| II. Economic and industrial development: | | | | |
| Department of agriculture | 203,679 | 187,651 | 288,603 | +100,952 |
| Local government department | 69,928 | 49,416 | 50,278 | +862 |
| Subtotal, economic and industrial development | 273,607 | 237,067 | 338,881 | +101,814 |
| III. Operations, maintenance, and transportation services: | | | | |
| Communications | 105,120 | 194,078 | 166,687 | −27,391 |
| Public works department | 951,518 | 1,059,500 | 1,624,509 | +565,009 |
| Port administration | 98,119 | 163,300 | 360,947 | +197,647 |
| Subtotal, operations, maintenance, and transportation services | 1,154,757 | 1,416,878 | 2,152,143 | +735,265 |
| IV. General administration: | | | | |
| Audit office | 7,497 | 28,600 | 18,647 | −9,953 |
| Administrative services | 563,725 | 418,521 | 413,942 | −4,579 |
| Executive office operations | 16,700 | 15,900 | 16,600 | +700 |
| Personnel office | 67,051 | 84,300 | 53,250 | −31,050 |
| Subtotal, general administration | 654,973 | 547,321 | 502,439 | −44,882 |
| Total, operating costs only | 4,223,696 | 6,269,000 | 7,306,811 | +1,037,811 |
| V. Construction | 9,062,450 | 7,533,000 | 2,858,000 | −4,675,000 |
| Subtotal, grants | 13,286,146 | 13,802,000 | 10,164,811 | −3,637,189 |
| Less: Local revenues | 1,100,000 | 1,800,000 | 2,416,000 | +616,000 |
| Net grants required | 12,186,146 | 12,002,000 | 7,748,811 | −4,253,189 |
| Total | 12,395,189 | 12,276,000 | 8,037,000 | −4,239,000 |

*Consolidated activities summary nonconstruction and construction items, fiscal year 1965*

| | Nonconstruction | Construction | 1965 total estimate |
|---|---|---|---|
| 1. Governor's office | $168,489 | | $168,489 |
| 2. Legislative expense | 30,600 | | 30,600 |
| 3. Chief justice and high court | 89,100 | | 89,100 |
| Subtotal, direct appropriations | 288,189 | | 288,189 |
| 4. Grants: | | | |
| Health, education, and welfare: | | | |
| (a) Samoan information | 29,703 | | 29,703 |
| (b) Department of education | 2,773,785 | | 2,773,785 |
| (c) Medical services department | 1,217,553 | | 1,217,553 |
| (d) Public defender | 8,597 | | 8,597 |
| (e) Public safety and legal affairs | 267,246 | | 267,246 |
| (f) Local judicial | 9,600 | | 9,600 |
| (g) Civil defense | 6,864 | | 6,864 |
| Subtotal, health, education, and welfare | 4,313,348 | | 4,313,348 |
| Economic and industrial development: | | | |
| (a) Department of agriculture | 288,603 | | 288,603 |
| (b) Local government department | 50,278 | | 50,278 |
| Subtotal, economic, and industrial development | 338,881 | | 338,881 |
| Operations, maintenance, and transportation services: | | | |
| (a) Communications | 166,687 | | 166,687 |
| (b) Public works department | 1,624,509 | | 1,624,509 |
| (c) Port administration department | 360,947 | | 360,947 |
| Subtotal, operations, maintenance, and transportation services | 2,152,143 | | 2,152,143 |

*Consolidated activities summary nonconstruction and construction items*

| | Nonconstruction | Construction | Total estimate 1965 |
|---|---|---|---|
| General administration | | | |
| (a) Audit office | $18,647 | | $18,647 |
| (b) Administrative services | 413,942 | | 413,942 |
| (c) Executive office operations | 16,600 | | 16,600 |
| (d) Personnel office | 53,250 | | 53,250 |
| Total, general administration | 502,439 | | 502,439 |
| Miscellaneous construction items: | | | |
| Road program | | 500,000 | 500,000 |
| Electrical system | | 823,000 | 823,000 |
| Water development | | 240,000 | 240,000 |
| Sewerage and sanitation development | | 284,000 | 284,000 |
| General supply revolving fund | | 300,000 | 300,000 |
| Telephone system | | 254,000 | 254,000 |
| Marine railway | | 212,000 | 212,000 |
| Harbor development | | 140,000 | 140,000 |
| Motor pool facility | | 49,000 | 49,000 |
| Maintenance shop facility | | 35,000 | 35,000 |
| Main dock dredging | | 11,000 | 11,000 |
| Small boat landing | | 10,000 | 10,000 |
| Total, miscellaneous construction | | 2,858,000 | 2,858,000 |
| Subtotal, grants | 7,306,811 | 2,858,000 | 10,164,811 |
| Less: Local revenue | 2,416,000 | | 2,416,000 |
| Estimated grant required | 4,890,811 | 2,858,000 | 7,748,811 |
| Total estimate, 1965 | 5,179,000 | 2,858,000 | 8,037,000 |

*Summary, fiscal year 1965*

| Object class | Direct appropriation | | | | Grants | |
|---|---|---|---|---|---|---|
| | Governor's office | Legislature | Chief justice high court | Administration and operation | Construction | Total estimate |
| 11 Personnel compensation: | | | | | | |
| Stateside | $107,914 | | $54,143 | $1,792,668 | | $1,954,725 |
| Samoan | 16,784 | $19,900 | 6,684 | 2,413,409 | | 2,456,777 |
| Terminal leave | | | 12,508 | 63,095 | | 75,603 |
| 12 Personnel benefits | 7,074 | 880 | 3,411 | 162,295 | | 173,660 |
| 13 Benefits for former personnel | | | | | | |
| Total | 131,772 | 20,780 | 76,746 | 4,431,467 | | 4,660,765 |
| 21 Travel and transportation of persons | 25,100 | 5,270 | 6,900 | 260,345 | | 297,615 |
| 22 Transportation of things | 1,017 | 50 | 2,100 | 104,260 | | 107,427 |
| 23 Rent, communications, and utilities | 1,500 | 100 | 225 | 21,000 | | 22,825 |
| 24 Printing and reproduction | 3,000 | 1,000 | 200 | 21,786 | | 25,986 |
| 25 Other services | 2,000 | 800 | 200 | 148,820 | | 151,820 |
| 26 Supplies and materials | 3,100 | 2,000 | 218 | 1,514,886 | | 1,520,204 |
| 31 Equipment | 1,000 | 600 | 2,511 | 613,190 | | 617,301 |
| 32 Lands and structures | | | | | $2,858,000 | 2,858,000 |
| 41 Grants, subsidies, and contributions | | | | 191,057 | | 191,057 |
| Total | 168,489 | 30,600 | 89,100 | 7,306,811 | 2,858,000 | 10,453,000 |
| Estimated income | | | | 2,416,000 | | 2,416,000 |
| Total estimate | 168,489 | 30,600 | 89,100 | 4,890,811 | 2,858,000 | 8,037,000 |

*Statement of revenue by sources*

| | 1963, actual | 1964, estimate | 1965, estimate |
|---|---|---|---|
| Department of Agriculture: | | | |
| Experimental farm | $4,593 | $6,500 | $10,000 |
| Sale of livestock | 5,748 | | 5,000 |
| Other | 2,996 | 200 | 3,300 |
| Total | 13,337 | 6,700 | 18,300 |
| Department of Administrative Services: | | | |
| Income tax | 212,600 | 652,000 | [1] 715,000 |
| Rents and leases | 112,139 | 75,000 | 185,000 |
| Interest on time savings deposits | 40,960 | 20,000 | 98,000 |
| Bus operations | 39,178 | 20,000 | 36,000 |
| Profit on sales | 28,537 | 18,000 | 20,000 |
| Bank dividend and other | 5,380 | 5,000 | 5,000 |
| Hotel | 58,415 | [2] | [2] |
| Print shop | 13,024 | 10,000 | [3] |
| Total | 510,233 | 800,000 | 1,059,000 |
| Communications: | | | |
| Radiograms | 46,129 | 40,000 | 54,000 |
| Oversea telephone | 514 | | 1,500 |
| Total | 46,643 | 40,000 | 55,500 |
| Department of Education: Miscellaneous | 242 | | |
| Medical Services Department: | | | |
| Hospital care and nursing | 33,541 | 20,000 | 40,000 |
| Laundry services | 4,692 | 1,500 | 5,000 |
| Other | 3,944 | 1,800 | 4,000 |
| Total | 42,177 | 23,300 | 49,000 |
| Department of Public Works: | | | |
| Electricity | 216,197 | 170,000 | 280,000 |
| Job orders, local | 47,249 | 4,000 | 120,000 |
| Water | 14,818 | 14,500 | 20,000 |
| Telephone | 8,753 | 8,500 | 16,000 |
| Marine railway | 1,622 | | [3] 5,000 |
| Other | 170 | 100 | 200 |
| Total | 288,809 | 197,100 | 441,200 |
| Department of Port Administration: | | | |
| Import and export duties | 597,018 | 520,000 | 608,000 |
| Piers and docks | 55,093 | 40,000 | 60,000 |
| Custom and harbor charges | 53,126 | 40,000 | 58,000 |
| Airport tariffs | 8,018 | 8,000 | [3] |
| Harbor craft operations | 8,004 | 10,000 | 8,000 |
| Other | 2,529 | 1,500 | 3,000 |
| Total | 723,788 | 619,500 | 737,000 |
| Miscellaneous: | | | |
| Licenses | 27,736 | 23,000 | 30,000 |
| Travel permits | 9,269 | 8,000 | 11,000 |
| Petroleum products tax | 10,335 | 25,000 | [4] |
| Court fees and fines | 5,910 | 6,400 | 8,000 |
| Other taxes and fees | 5,219 | 5,000 | 6,000 |
| General personal taxes | 1,511 | 46,000 | 1,000 |
| Total | 59,980 | 113,400 | 56,000 |
| Grand total | 1,685,209 | 1,800,000 | 2,416,000 |

[1] Fiscal year 1963 figures include what was formerly business tax.
[2] Hotel profit not programed in fiscal year 1965 as it is contemplated that by that time other than Government hotel will be in operation.
[3] To be operated on a revolving fund basis. Net profit only reflected as revenue. Print shop will be in 1st year of revolving fund operation and no revenue is estimated. Airport tariffs have been programed to defray maintenance costs.
[4] The petroleum products tax has been repealed and revenue from this source is reflected in import and export duties.

| | |
|---|---|
| (*a*) Governor's office | $168,489 |
| (*b*) Legislative expense | 30,600 |
| (*c*) Chief justice and high court | 89,100 |
| (*d*) Grants | 7,748,811 |
| **Total estimate** | 8,037,000 |

The estimate to operate the government of American Samoa, including the construction program, for the 1965 fiscal year is $8,037,000. This represents a net decrease of $4,239,000, the primary reason being a sharp decline in construction needs.

The anticipated revenue to help defray the cost of government this forthcoming year is estimated at $2,416,000 as compared to $1,800,000 estimated for fiscal year 1964 and $1,685,209 actual in fiscal year 1963.

Of the seven islands comprising the territory of American Samoa, the island of Tutuila is the largest. This island is divided into eastern and western districts while to the eastward, the Manu'a Island group comprises the third district by that name. The government is based on the north beach of the almost landlocked harbor of Pago Pago. This is on the south side of the island, with towering mountains surrounding it. It has long been noted as a safe haven for shipping. Aunu'u Island is at the southeastern tip of Tutuila. The Manu'a Islands eastward are comprised of Ta'u, Ofu, and Olosega. Little Swains Island, 240 miles north, is also part of the group with about 100 population. Eastward of Manu'a is the uninhabited island known as Rose Island. The islands comprise only 76.1 square miles of land, largely mountainous. About a fifth of the population resides in the bay area.

A population figure of 20,051 was given in the last 1960 official census. Serious efforts are being made to improve farming methods as taro and breadfruit shortages exist with inflated prices of these commodities resulting. Green bananas are also a commonly used staple.

The government is divided into three branches—the executive, legislative, and judicial. Effective in fiscal year 1963, an additional U.S. associate judge was added to the judiciary department of the government. Funds for expenses that are involved in the administration of the government of American Samoa are derived from a grant which is appropriated by the Congress of the United States plus funds from local revenues. Funds requested for each branch of the government are justified as follows:

(a) *Governor's office*

The sum of $168,489 is needed in the budget year for operating expenses of the Governor's office. This is $7,489 higher than the amount available in the current year, $1,900 being required to cover increased Federal pay costs. The position of Governor was upgraded to GS–18 as approved in March 1963 by the Civil Service Commission. This is a small office and increased Federal pay costs cannot be absorbed without reducing required positions.

The Governor of American Samoa has duties as the chief executive of the territory that include the supervision and general direction of various administrative agencies and instrumentalities of the local government. The Governor has the authority to formulate and execute territorial policies under the approval of the Secretary of the Interior. The Legislature of American Samoa passes bills and resolutions, and these are presented to the Governor for approval or veto. In addition, the Governor acts on behalf of the U.S. Federal agencies, such as the Passport and Visa Division of the Department of State. He maintains contact with Federal agencies through the Department of the Interior. American Samoa's chief executive is assisted by the Secretary of American Samoa in the handling of various executive duties. The Secretary serves as Acting Governor during the temporary absence of the Governor from the territory.

The expenses of this office are distributed as follows:

| | *Estimate, 1965* |
|---|---|
| Personnel compensation | $124,698 |
| Personnel benefits | 7,074 |
| Travel and transportation of persons | 25,100 |
| Transportation of things | 1,017 |
| Rent, communications, and utilities | 1,500 |
| Printing and reproduction | 3,000 |
| Other services | 2,000 |
| Supplies and materials | 3,100 |
| Equipment | 1,000 |
| Total estimate | 168,489 |

(b) *Legislative expense*

The estimate of $30,600 for fiscal year 1965 reflects a decrease of $4,400 under the current year. The decrease is due to savings in equipment costs for the year.

The Legislature of American Samoa is comprised of the senate and house of representatives. The legislature meets in an annual major session, and also in special sessions when such are convened by order of the Governor after due consultation with the senate president and the speaker of the house.

There are 15 members in the senate and 18 in the house. Members of the senate are elected to office by age-old traditional lines through the majority opinion of Samoan village councils. As there are five counties in both the eastern and Manu'a districts and only four in the western, the latter is permitted to choose one additional senator. This method is rotated within the four counties of this district. Members of the house of representatives campaign for their office and achieve this position when elected by the people in secret ballot. The counties have one representative each except for a bay area county in the eastern and one county in the western district. Due to the heavy population congregated in the bay area, three representatives are selected; two are chosen from the heavily populated area in the western portion. A delegate is also chosen from remote Swains Island to sit in the house.

The president of the senate and the speaker of the house of representatives are elected by their associates. The constitution allows all members to receive a maximum of $300 each on a yearly basis.

The expenses of this office are distributed as follows:

| | *Estimate, 1965* |
|---|---|
| Personnel compensation | $19,900 |
| Personnel benefits | 880 |
| Travel and transportation of persons | 5,270 |
| Transportation of things | 50 |
| Rent, communications, and utilities | 100 |
| Printing and reproduction | 1,000 |
| Other services | 800 |
| Supplies and materials | 2,000 |
| Equipment | 600 |
| Total estimate | 30,600 |

The amount requested for personal services is distributed as follows:

| | |
|---|---|
| Senate, 15 members, $5 a day for a maximum of 60 days | $4,500 |
| House of representatives, 17 members and 1 delegate from Swains Island, $5 a day for a maximum of 60 days | 5,400 |
| Employees engaged on a per diem basis during sessions | 10,000 |
| Total, personnel compensation | 19,900 |

(c) *Chief justice and high court*

The estimate of $89,100 for this activity in 1965 is $11,100 higher than the amount available in the current fiscal year. The increase is almost entirely due to step increases for Federal employees, as well as the Federal pay raise.

The judicial system of American Samoa is composed of a high court and five district courts. The high court, with jurisdiction throughout the islands, has an appellate, a trial, and a probate division. Appeals may be taken from the district courts and the trial and probate divisions of the high court to the appellate division of the high court.

The judicial branch of the government is under the administration and supervision of the chief justice of American Samoa. By express constitutional provision, the judicial branch is independent of the executive and legislative branches.

Samoan judges sit on all courts with the exception of the probate division of the high court in the first instance.

The high court has a clerk, a deputy clerk, a court officer, and a process server. These same officials serve the district court for the first district, each in the same capacity as he serves the high court. Each of the district courts for the second, third, fourth, and fifth districts has a clerk and a marshal. The clerk of the high court serves as court reporter. He is also registrar of titles, registrar of vital statistics, secretary of the land commission, and archivist for the government. He and his deputy issue marriage licenses and perform the functions usually performed by a county recorder in the States.

The deputy clerk of the high court and the court officer are the official interpreters for the high court and the district court for the first district.

The Samoan judges and the clerks and marshals of the four outlying district courts are paid from local funds.

During the fiscal year ending June 30, 1963, the various courts disposed of 729 criminal cases and 375 civil cases.

The expenses of this office are distributed as follows:

| | *Estimate, 1965* |
|---|---|
| Personnel compensation | $73,335 |
| Personnel benefits | 3,411 |
| Travel and transportation of persons | 6,900 |
| Transportation of things | 2,100 |
| Rent, communications, and utilities | 225 |
| Printing and reproduction | 200 |
| Other services | 200 |
| Supplies and materials | 218 |
| Equipment | 2,511 |
| Total estimate | 89,100 |

*(d) Grants—Summary of operating costs by object class*

| Object class | Actual, 1963 | Estimate, 1964 | Estimate, 1965 |
|---|---|---|---|
| 11 Personnel compensation: | | | |
| Stateside | $497,422 | $1,747,124 | $1,792,668 |
| Samoan | 1,622,022 | 2,103,882 | 2,413,409 |
| Terminal leave | 33,234 | 52,700 | 63,095 |
| 12 Personnel benefits | 69,967 | 147,256 | 162,295 |
| 13 Benefits for former personnel | 37,500 | 20,000 | |
| Subtotal | 2,260,145 | 4,070,962 | 4,431,467 |
| 21 Travel and transportation of persons | 129,788 | 260,641 | 260,345 |
| 22 Transportation of things | 27,865 | 136,480 | 104,260 |
| 23 Rent, communications, and utilities | 16,184 | 69,100 | 21,000 |
| 24 Printing and reproduction | 1,874 | 10,981 | 21,786 |
| 25 Other services | 129,807 | 121,258 | 148,820 |
| 26 Supplies and materials | 1,131,681 | 1,014,297 | 1,514,886 |
| 31 Equipment | 475,335 | 402,916 | 613,190 |
| 41 Grants, subsidies, and contributions | 51,017 | 182,365 | 191,057 |
| Total operating costs | 4,223,696 | 6,269,000 | 7,306,811 |
| Less receipts applied | 1,100,000 | 1,800,000 | 2,416,000 |
| Net operating costs | 3,123,696 | 4,469,000 | 4,890,811 |

*Health, education, and welfare, $4,313,348*

| | |
|---|---|
| Samoan information | $29,703 |
| Department of education | 2,773,785 |
| Medical services department | 1,217,553 |
| Public defender | 8,597 |
| Department of public safety and legal affairs | 267,246 |
| Local judicial | 9,600 |
| Civil defense | 6,864 |
| Total | 4,313,348 |

*Samoan information, $29,703.*—The sum of $29,703 is the estimate for fiscal year 1965, the same amount as for the current fiscal year. This activity is continuing in its plans to expand the present broadcasting system and is generating a wider interest in the programs presented. In addition to the evening programs, a schedule is maintained during the morning hours, and also on Saturday and Sunday. A college-trained Samoan is in charge of the radio station and also supervises a weekday publication of the news in mimeographed form. The government continues to pay United Press International $1,500 annually for teletype news service. Employees from this activity attend all major ceremonial and public affairs at which they obtain taped recordings for later broadcast to the general public. This procedure is also done for various legislative sessions, permitting the public to hear rebroadcasting of debates in both the house and senate.

*Department of education, $2,773,785.*—The estimate for fiscal year 1965 is $2,773,785 which is $566,204 over the current fiscal year. The following information supports material variations from fiscal year 1964 budgeted amounts. In fiscal year 1965, a net increase of 1 stateside position and 57 indigenous personnel are programed. Personal services costs are $188,173 higher than in 1964. The 1964 budget was programed for educational TV personnel at one-half year's salary due to programed activation of educational TV in the third quarter of fiscal year 1964. On an annual basis the cost of educational TV personnel would have been $223,000 higher; however, nine Samoan personnel have been located for positions originally programed for U.S. employees. Travel and transportation of things decreased $56,479 due to reduced requirement for the forthcoming year. Rents, communications, and utilities has a decrease of $45,525 due to time phasing of industrial funding of utility services set for fiscal year 1966. Supplies and materials increased $157,500. This is primarily due to the proposal to upgrade the quality of the school lunch program to a cost of 12 cents per day for each child in public schools as our share in the national school lunch program, and to the programing of $10,000 in local funds matching those available under the National Library Services Act (sec. 5–70, Stat. 293, 20 U.S.C. 351). The scholarship program cost has increased by $78,060. Of this, $18,230 is the result of consolidating the scholarship program within the department of education, and the balance is to cover costs of scholarships for an additional 35 students in the forthcoming fiscal year.

*Medical services department, $1,217,553.*—The amount requested in fiscal year 1965 shows a decrease of $375,625 under the current fiscal year. There is a decrease in stateside positions from 32 to 20. These positions have not been activated due to the delayed time phasing in the completion of the new hospital. Along with nonoccurrence of terminal leave, the total reduction in personal stateside, is $148,460. A net increase of eight Samoan positions is programed. The medical supply division was transferred to this department to permit better service on procurement control and issue of medical supplies, while the garbage disposal unit which employs 11 positions was transferred to the public works department. Additional housekeeper and housemother positions were added to maintain the hospital in a clean state, control linen and housekeeping supplies, and provide necessary supervision for the nurses dormitory. There has been some general reclassification of local national salary scale to keep personnel from moving to local industries. Travel cost and transportation of things have been decreased $18,428. Supplies and materials have a decrease of $58,174, primarily due to the vigilance of better trained staff members. Equipment costs are reduced by $128,215 over the preceding year. The epuipment requirement reflected in this budget is primarily for replacement of wornout, uneconomical to repair, equipment.

*Public defender, $8,597.*—The estimate for fiscal year 1965 is $8,597 which is an increase of $1,097 over the preceding year. The primary increase in fiscal year 1965 is in the cost of the contractual services for a lawyer from western Samoa employed on a part-time basis to represent defendants in all criminal cases in American Samoa; he also acts as a counsel for the people of this territory.

*Public safety and legal affairs, $267,246.*—The estimate for fiscal year 1965 is $267,246, an increase of $46,924 over the current year. Material variations from budget fiscal year 1964 are explained as follows: Personal services costs have increased by $24,664 due to the need for an assistant in the attorney general's office to assist in the greatly accelerated workload caused by expanding economic development. Travel and transportation of things are increased $12,050 due to repatriation of the present attorney general and public safety director, and procuring their reliefs, as well as expense incurred in procuring the new assistant attorney general. Other services have increased $7,800 primarily to obtain services of a professional fire instructor to train the Samoan staff employed in the local fire department.

The attorney general is Samoa's chief legal officer. His duties also include such work in immigration matters, incorporation of all amendments into the local code and proper dissemination of same. During the past year 248 complaints were handled, of which 94 were convicted, 7 acquitted, 12 annulled, 43 settled out of court, and 92 cases remaining open. There were 519 traffic cases prosecuted during the year, 436 were completed, 39 found not guilty and 44 nolle prosequi's were entered. The average prison population during the year was 35.2.

*Local judicial, $9,600.*—The estimate for fiscal year 1965 is $9,600, which is $150 over the current year. This increase covers $40 for a slight salary increment for the four Samoan associate justices, $50 more for travel costs to Manu'a, and $60 for supplies and materials.

There are five district courts: One for Ituau and Mauputasi Counties and Swains Island; one for Ofu and Olosega Counties in Manu'a, and one for Faleasao, Fitiuta, and Ta'u Counties, also in Manu'a; one for Lealataua, Leasina, Tualatai, and Tualauta Counties; and one for Sua, Vaifanua, and Sa'ole Counties. There is also the high court which has jurisdiction throughout the islands. The high court has a trial division, a probate division, and an appellate division.

The high court has a clerk, a deputy clerk, a court officer, and a process server. These same officials serve the district court for the first district, each in the same capacity as he serves the high court. Each of the four outlying district courts has a clerk and a marshal.

With the exception of the chief justice, the associate justice, and the clerk of the high court, all three of whom are from the United States, all court personnel are Samoan. The four Samoan judges and the clerks and marshals of the four outlying district courts are paid from local funds.

During the fiscal year ending June 30, 1963, the various courts disposed of 729 criminal cases and 375 civil cases.

*Civil defense, $6,864.*—This activity is conducted in conjunction with funds received from the national civil defense program under Public Law, 920, 81st Congress, as amended, and Public Law 85–606 which amended portions of Public Law 920, together with Executive Order 10925 of August 1, 1961. Half of the costs, totaling $13,837, contemplated for this forthcoming fiscal year are borne by local funds and half by the Department of Civil Defense. The director of civil defense is the incumbent director of port administration; only one-third of his salary is paid by this division. He is assisted by a deputy director and one clerk.

| | Samoan information | Department of education | Department of medical services | Public defender | Public safety and legal affairs | Local judicial | Civil defense | Totals |
|---|---|---|---|---|---|---|---|---|
| Personnel compensation: | | | | | | | | |
| Stateside employees | | $1,180,273 | $238,800 | | $39,175 | | | $1,458,248 |
| Samoan employees | $23,543 | 671,132 | 490,790 | $5,257 | 144,378 | $8,340 | $4,247 | 1,347,687 |
| Personnel benefits | 1,050 | 73,146 | 25,726 | 240 | 7,553 | 500 | 137 | 108,352 |
| Travel and transportation: | | | | | | | | |
| Stateside employees | | 91,260 | 62,084 | 300 | 9,000 | | | 162,644 |
| Samoan employees | 160 | 4,310 | 14,350 | | 4,600 | 600 | 1,000 | 25,020 |
| Transportation of things: | | | | | | | | |
| Stateside employees | | 55,810 | 9,600 | | 4,100 | | | 69,510 |
| Samoan employees | | 2,750 | 900 | | 1,500 | | | 5,150 |
| Rent, communications, and utilities | 50 | 3,340 | 1,110 | 50 | 200 | | 25 | 4,775 |
| Printing and reproduction | 400 | 5,031 | 3,800 | 100 | 800 | | | 10,131 |
| Other services | 2,000 | 24,780 | 41,600 | 2,500 | 8,850 | | | 79,730 |
| Supplies and materials | 2,000 | 410,137 | 294,026 | 150 | 18,100 | 160 | 875 | 725,448 |
| Equipment | 500 | 67,691 | 34,767 | | 25,340 | | 580 | 128,878 |
| Grants, subsidies, and contributions | | 184,125 | | | 3,650 | | | 187,775 |
| Total estimate | 29,703 | 2,773,785 | 1,217,553 | 8,597 | 267,246 | 9,600 | 6,864 | 4,313,348 |

*Economic and industrial development, $338,881*

| | |
|---|---|
| Department of agriculture | $288,603 |
| Local government | 50,278 |
| Total | 338,881 |

*Department of agriculture, $288,603.*—The estimate for fiscal year 1965 is $288,603. This is an increase of $100,952 over the current year. The department of agriculture has been completely reorganized and expanded to facilitate better training of Samoans in agriculture and service to the community with the stress being placed on assistance in producing commercial crops, livestock, fruit trees, and fishing industries. With the increase in air traffic and a general increase in agricultural production, continued emphasis must be placed on quarantine and insect control. The department has added an entomology division and a fisheries division, requiring 13 additional local national employees in the first and 5 in the second group. The increase in personal service costs will be $31,119, which includes terminal leave pay of the director and entomologist, and some incremental salary increases and reclassification of some local national positions. A net increase of $4,834 is programed for "Travel and transportation of things" in connection with repatriation of the director and the entomologist. An increase of $9,350 in "Other services" is necessary to handle costs of hiring peak season employees. Supplies and materials costs have increased by $41,795 to provide for the purchase of larger quantities of poultry feed for the increased flock which will be recovered in revenues from sale of poultry and eggs, and increased requirements for fertilizer, various fungicides and insecticides for filariasis vector control for use by the entomologist. Equipment reflects an increase of $11,200, mainly to procure laboratory furnishings and equipment and a 1,500-cubic-foot fumigation chamber. Other miscellaneous objects of expenditure show a net increase of $2,654.

*Local government, $50,278.*—The estimate for fiscal year 1965 is $50,278. This is $862 higher than the preceding year. The net increase is in personal services due to a salary increment for the Secretary of Samoan Affairs. It is the intention of this government to gradually phase out the old positions of pulenu'u (mayor) and leoleo (policeman) in the various villages in American Samoa and replace each in the three districts with 10 trained policemen to maintain law and order. Funds are already allocated for such a move in the department of public safety and legal affairs; and, as long as the pulenu'us and leoleos are in office pending ultimate release from their positions, cost of their salary will be defrayed from the funds in the public safety activity. The positions of district governors (3), county chiefs (14), 3 administrative and 3 agricultural assistants will continue to be filled and budgeted for under this activity.

District governors generally attain office by being selected from the highest ranking chiefs in the island group after being considered by the district councils; their recommendations go to the Governor who then makes final selection. County chiefs are nominated by the county councils; their appointments are approved by district governors, and a formal appointment is made by the Governor of American Samoa.

The following is a distribution of the expenses of the activities under "Economic and industrial development":

| | Department of Agriculture | Department of local government | Total |
|---|---|---|---|
| Personnel compensation: | | | |
| Stateside employees | $51,000 | | $51,000 |
| Samoan employees | 86,432 | $42,311 | 128,743 |
| Personnel benefits | 5,028 | 1,967 | 6,995 |
| Travel and transportation: | | | |
| Stateside employees | 7,511 | | 7,511 |
| Samoan employees | 2,900 | 2,400 | 5,300 |
| Transportation of things: | | | |
| Stateside employees | 2,900 | | 2,900 |
| Samoan employees | 1,650 | | 1,650 |
| Rent, communications, and utilities | 750 | 50 | 800 |
| Printing and reproduction | 5,105 | 100 | 5,205 |
| Other services | 27,950 | 400 | 28,350 |
| Supplies and materials | 56,995 | 1,450 | 58,445 |
| Equipment | 37,100 | 1,600 | 38,700 |
| Grants, subsidies, and contributions | 3,282 | | 3,282 |
| Total estimate | 288,603 | 50,278 | 338,881 |

*Operations, maintenance, and transportation services, $2,152,143*

| | |
|---|---|
| Communications | $166,687 |
| Public works | 1,624,509 |
| Port administration | 360,947 |
| Total | 2,152,143 |

*Communications, $166,687.*—This estimate represents a decrease of $27,391 under the current fiscal year. Savings were achieved by reducing the stateside positions from 9 to 6 and increasing local positions from 30 to 44 with a net reduction in "Personal services" costs of $13,696. "Travel and transportation of things" has been reduced by $10,000.

The communications service of American Samoa operates on a 24-hour worldwide basis, principally through Hawaii and using a multichannel teletype system connecting with commercial operating companies. Oversea telephone service is also now in operation with the United States and foreign countries. Communications service with coastal shipping is maintained as well as seagoing vessels. Commercial point-to-point telegraph circuits are maintained with Fiji, Western Samoa for best routes to Australia, New Zealand, Tahiti, and other Pacific points. Consolidation of services with those provided by the FAA is being effected to the extent feasible.

*Department of public works, $1,624,509.*—The estimate for the fiscal year 1965 indicates an increase of $565,009 over the amount available for fiscal year 1964. The primary reasons for this increased request are:

(*a*) Greatly increased plant, now under construction, which will require operation and maintenance in fiscal year 1965. This includes 4,000 kilowatts of additional installed power capacity and islandwide electrification system, extended telephone and water systems.

(*b*) Accumulative and deferred maintenance on plant buildings and housing caused by primary attention to accelerated heavy construction program, the first phase of which was completed in 1963.

(*c*) Rapidly increasing private interest in construction, electrical service, water supply, and sanitation. The Government provides all such services on a reimbursable basis.

(*d*) Continuing loss of higher skilled personnel to newly established island private industries necessitating importation of U.S. citizens as supervisors and skilled technicians.

"Personal services, stateside employees" is up $32,547 to provide supervision and special skills not available in Samoa, and to meet shortages aggravated by flow of higher skilled personnel to private industry. This will continue only until additional Samoa employees are trained and retained.

"Personal services, indigenous employees" is up $142,857 partly to perform maintenance of buildings, water system and rolling stock deferred because of engagement of forces on urgent new construction. Approximately 100 miles of village water supply mains serving Tutuila and Manu'a group islands, exclusive of the Pago Harbor area constructed during World War II from various sizes and types of pipe and tanks, are reaching the end of their service life. At the same time villagers are desiring to receive the benefits of electrification and improved sanitation. Therefore, much of these systems, will need to be rebuilt in fiscal year 1965.

Funds requested for "Supplies and materials," are increased by $87,133. The majority of government buildings are of wood frame construction and average from 21 to about 60 years in age. Roofs and floor framing disclose extensive deterioration, and typhoon anchors have corroded beyond all usefulness in many structures. Much replacement is due now and must be performed throughout fiscal year 1965. Though completion of the islandwide electric system is still 10 months away, more than 350 requests have been received for house electrical connections and complete wiring. At least an equal number of additional requests are anticipated before July 1964. Most of these will request complete house wiring from the government, resulting in large use of electrical materials on a reimbursable basis. Like increases in sanitary facilities and water services are anticipated.

Funds requested for "Equipment" show an increase of $324,494. This reflects the need for new items of construction equipment and maintenance vehicles to replace old and wornout items on which continuing repairs are uneconomical since they range in age generally from 10 to 20 years and are badly deteriorated from the corrosive climate of Samoa. Also the rural extension of utilities and

refuse collection points will require more vehicles for proper service and maintenance performance.

*Port administration, $360,947.*—The estimate of $360,947 for fiscal year 1965 is $197,647 over that of the current year. For the past several years, American Samoa has not had surface vessels to carry out interisland service. In order to assure adequate operations early in calendar year 1963 the Congress approved the reprograming of funds for $150,000 for two boats. One was to be a 45-foot launch and the other a 100-foot seagoing vessel for search and rescue and offshore island duty. After 6 months of searching, it was found impossible to find such a boat in the United States within the money allowed. However, in September 1963, two boats within the allowable amounts were located in Hong Kong. At about this time, however, it appeared that the Coast Guard might establish a much needed base in Pago Pago, and, therefore, the Governor delayed placing the order for the boats in Hong Kong until a final decision was made to cover the area by a locally based Coast Guard ship. In the meantime the *Hugh M. Smith* was acquired from the Fish and Wildlife Service. This boat is too expensive and too old to continue service but it was felt that it could do for possibly 1 year pending arrival of a Coast Guard vessel or pending the construction of new boats in Hong Kong. An increase of $39,282 is required for a crew to man the *Hugh M. Smith.* A seagoing tug and two YTL's have been acquired by the government for its needed operations. It is felt that the crew will be able to operate the two larger vessels when one or the other is called for. The $6,000 increase in "Other services" covers costs of drydocking and repairing small craft. A $103,694 increase in "Supplies and materials" is added cost of fuel and supplies for the vessels referred to above. Equipment costs are up $50,000 of which $25,000 is required to obtain three new marine engines and $25,000 to replace No. 3 motor launch.

The port administration department handles all matters involving planes and vessels, their arrivals and departure in American Samoa. A port patrol is employed for security measures for both harbor and docks. The customs division is also a function of this department and increased incoming cargo has placed more responsibility in this area. The addition of a harbor tug will greatly facilitate berthing and unberthing ships in the harbor. Small boats are also used to provide water transportation to remote villages on the north side.

The following is a distribution of the expenses of the activities within "Operations, maintenance, and transportation services":

| | Communications | Public works department | Port administration | Total |
|---|---|---|---|---|
| Personnel compensation: | | | | |
| Stateside employees | $52,965 | $148,481 | $41,140 | $242,586 |
| Samoan employees | 65,416 | 569,254 | 91,429 | 726,099 |
| Personnel benefits | 4,316 | 23,072 | 5,694 | 33,082 |
| Travel and transportation of persons: | | | | |
| Stateside employees | 4,450 | 20,350 | 1,200 | 26,000 |
| Samoan employees | 1,800 | 10,600 | 1,500 | 13,900 |
| Transportation of things: | | | | |
| Stateside employees | 1,600 | 12,000 | 900 | 14,500 |
| Samoan employees | 3,250 | 600 | | 3,850 |
| Rent, communications, and utilities | 15,250 | 125 | 50 | 15,425 |
| Printing and reproduction | 500 | 3,050 | | 3,550 |
| Other services | 2,140 | 2,100 | 17,100 | 21,340 |
| Supplies and materials | 15,000 | 510,383 | 151,546 | 676,929 |
| Equipment | | 324,494 | 50,388 | 374,882 |
| Total estimate | 166,687 | 1,624,509 | 360,947 | 2,152,143 |

*General administration, $502,439*

| | |
|---|---|
| Audit office | $18,647 |
| Administration services | 413,942 |
| Executive office operations | 16,600 |
| Personnel office | 53,250 |
| Total | 502,439 |

*Audit office, $18,647.*—The estimate for fiscal year 1965 is $18,647 which is $9,953 less than the previous year. This decrease is due primarily to reorganization of the audit staff, and nonrecurrence of travel and transportation of things.

Audits of all phases of the government finances are conducted by this division. This includes general review and appraisal of policies, plans, and procedures in coordination with the local government and activities. The audit office acts in an advisory capacity and not as a line or operating function.

*Department of administrative services, $413,942.*—The estimate for the fiscal year 1965 is $413,942 which is a decrease of $4,579. This is primarily due to the transfer of the motor pool to the public works department, and medical supply to the medical services department. Due to the inability to procure a suitable, trained U.S. business machine repairman, the position has been cancelled and contractual services will be utilized.

The director, department of administrative services, is also treasurer of the government of American Samoa. The position of the treasurer is reflected in this department budget. An increase is programed for two U.S. employees. The activation of the income tax unit, administering the equivalent of the U.S. Federal Income Tax Code as the Income Tax Code of American Samoa, requires the employment of a qualified tax practitioner or tax agent presently with the Internal Revenue, if one can be located. The position established is that of comptroller to utilize the services of the incumbent of this position in the overall treasurer's office when tax work is not required. The position of assistant accounting and disbursing officer has been established to provide for better internal control and closer supervision and implementation of required procedures. The position of director of administrative service-trasurer has been established as GS-13 (excepted service). The net increase for personal services over the current year amounts to $50,603 which also reflects regular increments to local national employees.

"Travel and transportation of things" reflects a $6,265 increase to obtain U.S. personnel. A $1,450 increase in printing is due to plans to print a "Manual of Operating Procedures" for the department, and income and other tax instructions that will be needed. Supplies and materials show a decrease of $7,313 due to placing the printshop in a revolving fund status, and general reduction in fuel and other costs. Equipment is reduced $21,487 primarily due to the fact that needs of the general supply division were filled during the current year in this regard.

All financial matters, including payrolls, reports, and financial statements of the government are handled by this department. All storage, procurement and issue of supplies, as well as property inventory control, are maintained. Budgeting and budgetary control, as well as management services; including dependent supply, housing, land transportation, printshop, and the government hotel, are provided by this department.

*Executive office operations, $16,600.*—The estimate for fiscal year 1965 is $16,600 which reflects slight increases in "Other services" ($200) and "Supplies and materials" ($500); the first increased item is for repairs to the ceremonial fale, and the second for replacement of essential household utensils and linen.

*Personnel office, $53,250.*—The estimate for fiscal year 1965 is $53,250. This is a decrease of $31,050 as compared to the current year. "Personal services" shows a $6,789 increase due to the need to raise the salary of the industrial relations development officer position in order to procure a suitably qualified man, salary increments, terminal leave of the personnel officer, and the addition of one new clerk due to the greatly increased workload in this office. Decreases of $2,780 in "Travel and transportation of things" and $17,160 in "Other services" is due to reallocating the training program costs to the department of education. The retirement fund is adequate to provide for "Benefits for former personnel" obviating this requirement in fiscal year 1965.

The personnel office handles social security and other employee benefits as well as benefits for retired personnel. All matters of recruitment, employment locally and from overseas, as well as personnel reclassification, promotion, demotion, or discharge, are handled by this office. The staff consists of three United States and four Samoan employees. The office also handles travel and transportation of household effects, documents for incoming and outgoing personnel, and renders assistance on personnel problems, procedure, or programs to staff and departmental members, acting under the authority of the Governor.

The following is a distribution of the expenses of the activities within "General administration":

| | Audit office | Administrative services | Executive office operations | Personnel office | Total |
|---|---|---|---|---|---|
| Personnel compensation: | | | | | |
| Stateside employees | $10,000 | $62,527 | ---------- | $31,402 | $103,929 |
| Samoan employees | 7,387 | 193,144 | ---------- | 10,349 | 210,880 |
| Personnel benefits | 560 | 11,986 | $200 | 1,120 | 13,866 |
| Travel and transportation of persons: | | | | | |
| Stateside employees | ---------- | 8,300 | 2,500 | 4,260 | 15,060 |
| Samoan employees | 50 | 2,200 | 500 | 2,160 | 4,910 |
| Transportation of things: | | | | | |
| Stateside employees | ---------- | 1,400 | 500 | 1,600 | 3,500 |
| Samoan employees | ---------- | 200 | ---------- | 300 | 500 |
| Rent, communications, and utilities | ---------- | 2,400 | ---------- | 300 | 2,700 |
| Printing and reproduction | ---------- | 2,500 | 300 | 100 | 2,900 |
| Other services | 150 | 9,650 | 9,600 | ---------- | 19,400 |
| Supplies and materials | 200 | 50,920 | 2,000 | 944 | 54,064 |
| Equipment | 300 | 68,715 | 1,000 | 715 | 70,730 |
| Total estimate | 18,647 | 413,942 | 16,600 | 53,250 | 502,439 |

*Construction program $2,858,000*

*Road program, $500,000*

In the supplemental budget for fiscal year 1962 we proposed a program of paving 35 miles of main road from one end of Tutuila Island to the other and asked for $1,520,200. Of this amount $671,000 was for equipment to be used on the total program. Very shortly after we did this our engineer said he could complete the remaining 20 miles in fiscal 1963 for $744,000, which was substantially under our fiscal year 1962 estimate and proved to be totally inadequate. The fiscal year 1963 budget enabled us to complete 77 percent of the job. When the total program is complete, the cost per mile will be $57,840, as compared to the original programed estimate of $60,800. Because of the major importance of the main road as compared to the secondary road system, we are moving ahead on main road construction with some of the funds approved in fiscal 1964 for secondary roads. Of the $500,000 approved in fiscal year 1964 and the $500,000 requested in this budget, $490,000 will be used to complete the main road.

*Electrical system, $823,000*

Final phase of system. The total installed capacity of the Satala powerplant will be 6,000 kilowatts by March 1964. Increased power demands are programed for a total load by 1965 of 5,200 kilowatts. These power demands have been computed on presently operating industrial plant capacity and do not include power to potential industries such as the hotel which is not yet under construction. To insure that a minimum margin is maintained and plant flexibility is achieved, it is proposed that one additional 3,000-kilowatt unit be installed in fiscal year 1965 to include necessary building expansion and auxiliaries.

*Water development, $240,000*

The first phase of major improvements to the water system of Pago Pago and Tafuna areas was authorized in fiscal year 1964 at $1 million of a total program of $2,500,000. This fiscal year 1965 budget includes only the second phase of improvements and connections with government housing. With continued industrial development in the bay area and expansion of the Tafuna area both for residential and tourist utilization, it is planned to develop sufficient storage for at least an 8-day supply of water. A complete study was made of the supply, storage, and distribution system for the entire Pago Pago Bay area and vicinity with the recommended total program of $2,500,000.

*Sewerage and sanitation development, $284,000*

In fiscal year 1964 the Congress approved funds for alternate plan A for the construction of a sewer system in the bay and village areas totaling $1,500,000. This did not include $600,000 for development of the village system in the Tafuna and outlying areas. It is proposed to begin development of the village system in the Tafuna area in fiscal year 1965 which is a continuation of the approved program.

*Telephone system, $254,000*

This is the last phase of the telephone system on Tutuila and includes a 25-line, 50-connector, automatic telephone exchange with interoffice trunking equipment for two-way dial trunks into the Tafuna and Fagatogo exchange with the villages of Leone and Faga'itua. Telephone cables and lines will then be extended to all villages and schools east, west, north, and south of these points. The contemplated program was outlined in the fiscal year 1963 budget justification when Congress appropriated $112,000 to begin construction for the proposed system.

*Marine railway, $212,000*

In the supplemental budget for fiscal year 1962, $55,000 was requested to repair the marine railway. The money was granted. However, at about the time the money was received, the fishing fleet increased substantially and has continued to increase to the point that we have been unable to shut down the marine railway long enough to repair it. In fiscal year 1963, we requested the reprograming of $70,000 to repair and tow a surplus drydock from Honolulu to Samoa to handle the surgent situation. After getting a final estimate from the navy yard on the repair and tow of this vessel, we found we were $53,000 short. Consequently, we requested these additional funds and they were approved. After approval of these funds, we had a final review made by a competent naval engineer, and it appeared that the activation and repair costs along with the estimated operating costs of the dock would make it too expensive for operation in American Samoa. It was thereafter determined that it would be much cheaper to build a new marine railway, and thus we requested $212,000 to add to the $123,000 to build it. In fiscal year 1963, a total of $88,500 was approved for equipment to be used for the marine railway and land reclamation. The equipment was a 100-ton steel barge, a 25-ton truck crane, and a 310-cubic-foot-per-minute air compressor. We were able to secure a barge that was surplus to the Navy at no cost and got it to American Samoa by opportune lift. We can use a construction crawler-type crane and air compressor for dredging and pile driving operations. It is proposed to use the $88,500 along with $5,000 in this budget to procure replacement equipment for a lathe and milling machine over 20 years old and not capable of cutting to required tolerance, and additional accessory equipment necessary to the expanded operation of the marine railway.

*Harbor development, $140,000*

The budget justification for fiscal year 1964 included $500,000 for the first phase of harbor reclamation and development. The second phase of this program for which funds are requested in fiscal year 1965 is the estimated cost for replacement of dock buildings, improvements to the main dock, and for replacement of the timber portion of the customs dock now beyond economical repair.

*Motor-pool facility, $49,000*

Garage, parking, and maintenance facilities are required to provide adequate service to the 259 Government vehicles, 2½-ton and smaller. The present motor pool is inadequate and the traffic creates further congestion in the already crowded dockside area at Fagatogo. The proposed facility will include a wash pad and a grease rack and will provide a physical plant necessary to the daily and weekly maintenance of these vehicles.

*Maintenance shop facility, $35,000*

The present utility shop and storage areas are individually and temporarily located where space permits. The increase in Government facilities and increase in maintenance requirements dictates the need for a more efficient utilization of maintenance equipment and personnel. This proposed prefabricated building to be constructed will provide storage and centralization of shops and will permit pooling of tools, machines, and personnel common to all the utility shops.

*Main dock dredging, $11,000*

Silting around the main dock has reduced the draft to approximately 32 feet. It is proposed to dredge the area to the required 40 feet. The volume of dredging is approximately 3,000 cubic yards.

*Small-boat landing, $10,000*

The small-boat landing of timber construction, approximately 20 years old, is beyond economical repair. It is proposed that the landing be replaced with a 50- by 12-foot composite landing with temporary dock facilities provided in order that small boats may be docked near the customs dock during the interval of the construction.

*General supply revolving fund, $300,000*

The present authorized general supply revolving fund is inadequate to the requirements for ready availability of supplies and spare parts; further, the increased plant capacity will increase requirements. It is proposed to increase the capabilities of the general supply revolving fund to maintain adequate stock supply and obviate the need for air shipment of parts and supplies.

THE BANK OF AMERICAN SAMOA, PAGO PAGO, AMERICAN SAMOA

*Statement of condition, June 30, 1963*

RESOURCES

| | |
|---|---|
| Cash on hand and in banks | $465, 164. 12 |
| U.S. Government obligations | 970, 588. 76 |
| Time deposit in banks | 10, 600, 000. 00 |
| Loans and discounts | 472, 825. 13 |
| Overdrafts | 1, 102. 59 |
| Bank furniture and equipment | 13, 107. 00 |
| Accrued interest receivable | 130, 516. 46 |
| Customers liability under L/Credit | 111, 116. 80 |
| Other resources | 51, 235. 97 |
| Total resources | 12, 815, 656. 83 |

LIABILITIES

| | | |
|---|---|---|
| Deposits: | | |
| Commercial: | | |
| Individual | | 899, 822. 20 |
| Government | | 4, 694, 804. 94 |
| Savings and time: | | |
| Individual | | 763, 602. 86 |
| Government | | 5, 600, 000. 00 |
| Total deposits | | 11, 958, 230. 00 |
| Letters of credit | | 111, 116. 80 |
| Reserve for unearned discount | | 15, 902. 68 |
| Other liabilities | | 48, 906. 18 |
| Capital account | | 681, 501. 17 |
| Capital stock | $100, 000. 00 | |
| Surplus | 300, 000. 00 | |
| Undivided profits | 41, 792. 57 | |
| Reserves for contingencies | 239, 708. 60 | |
| Total liabilities | | 12, 815, 656. 83 |

NOTE.—U.S. Government Bonds of $160,000 par value pledged to secure U.S. Government deposits.

*4. Canton Island Administration, $22,000*

The estimate for this activity is $1,000 more than for the current year, $900 of which is for increased pay costs. Estimated expenditures are distributed as follows:

| | |
|---|---|
| Personnel compensation and benefits | $19, 650 |
| Contractual services and supplies | 2, 350 |

*5. General administration, $357,000*

The estimate represents an increase of $43,000 over the amount available for this activity in the current fiscal year, $6,600 of which is for increased pay costs. The balance of the increase is related directly to the greatly accelerated and expanded programs in our territories, particularly in Guam and the trust territory. Primary increase over the next few years will be in the construction activity due to the Guam rehabilitation bill and the "Report of the U.S. Survey Mission to the Trust Territory." Specifically, the total overall construction program in our territories will approximate a need for $25 million in fiscal year 1965. This greatly expanded program will require increased and closer technical surveillance by this office of the various territorial construction projects, to include contract administration.

Estimated expenditures for the Washington office are distributed as follows:

| | |
|---|---|
| Personnel compensation and benefits | $318,000 |
| Contractual services and supplies | 37,000 |
| Equipment | 2,000 |
| Total estimate | 357,000 |

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $13,684,324 | $13,000,000 | $18,814,000 | +$5,814,000 |
| Unobligated balance lapsing | 112,176 | | | |
| Appropriation | 13,796,500 | 13,000,000 | 18,814,000 | +5,814,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 654,718 | 784,391 | 856,736 | +72,345 |
| 12 Personnel benefits | 42,112 | 50,229 | 57,312 | +7,083 |
| 21 Travel and transportation of persons | 72,624 | 67,685 | 73,970 | +6,285 |
| 22 Transportation of things | 16,476 | 13,250 | 9,617 | −3,633 |
| 23 Rent, communications, and utilities | 23,210 | 23,175 | 23,225 | +50 |
| 24 Printing and reproduction | 15,796 | 11,280 | 12,300 | +1,020 |
| 25 Other services | 19,668 | 15,185 | 10,900 | −4,285 |
| 26 Supplies and materials | 25,700 | 21,945 | 12,818 | −9,127 |
| 31 Equipment | 6,620 | 10,860 | 8,311 | −2,549 |
| 33 Investments and loans | | | 6,539,000 | +6,539,000 |
| 41 Grants, subsidies, and contributions | 12,807,400 | 12,002,000 | 11,209,811 | −792,189 |
| Total obligations | 13,684,324 | 13,000,000 | 18,814,000 | +5,814,000 |

1965 BUDGET REQUEST

Chairman HAYDEN. Would you please present to the committee your statement discussing the need for this appropriation?

Mr. TAITANO. I thank you very much, Mr. Chairman. I have a very short statement and, if it pleases you, I will just have it inserted in the record and I will just highlight it.

Chairman HAYDEN. That may be done

(The statement referred to follows:)

STATEMENT OF RICHARD F. TAITANO, DIRECTOR, OFFICE OF TERRITORIES

Mr. Chairman and members of the committee, I appreciate the opportunity to appear again before you to discuss the budgetary needs for the administration of our territories and possessions. I should like to present for your consideration, Mr. Chairman, our estimates for the activities under the jurisdiction of the Office of Territories for the fiscal year 1965.

The estimate of $36,314,000 for 1965 for the administration of our offshore territories represents a net increase of $8,314,000 over the present adjusted appropriations for our activities for the current fiscal year; however, since there is included in the budget an item of $11,464,000 for separate transmittal for the current year for the territory of Guam, there would be a net decrease of $3,150,000 if the proposed supplemental funds are made available in fiscal 1964.

ADMINISTRATION OF TERRITORIES

The $18,814,000 requested herein for this activity is $5,814,000 more than the adjusted appropriation for 1964; however, if the proposed supplemental funds of $11,464,000 for the current year are made available to begin the Guam rehabilitation program as authorized by Public Law 88–170 of November 4, 1963, there will be a net decrease of $5,650,000 in the budget year. The 1965 estimate provides funds for Guam to continue the rehabilitation program, for American Samoa activities with continued emphasis on expanded programs in education, public health, and communications, and for territorial support activities, such as the immediate offices of the Governors, the Virgin Islands comptroller, and the Office of Territories.

TRUST TERRITORY OF THE PACIFIC ISLANDS

The estimate of $17,500,000 for the trust territory program is $2,500,000 more than the present adjusted appropriation for 1964. The 1965 program includes $4,920,000 to finance the cost of the construction program, $1,304,000 of which is for the education program, $888,000 for the hospital at Truk, and $2,728,000 for housing, airfield, power and water, road, communications, and other facilities. Other significant amounts are $3,900,000 for educational services, $2,120,000 for medical services, $1,285,000 for resources management and development activities, and $3,575,000 for operations, maintenance, transportation, and communications services.

VIRGIN ISLANDS CORPORATION

Funds are not being requested for the Virgin Islands Corporation in 1965.

Mr. Chairman and members of the committee, I have here today our territorial officials and certain members of my office staff who will furnish any detailed information the committee may desire regarding our territorial budgetary programs for the ensuing fiscal year.

Thank you.

REHABILITATION AND IMPROVEMENT

Mr. TAITANO. The request that you mentioned, Mr. Chairman, for this year, includes a request for the government of Guam. This is for rehabilitation purposes primarily.

With the trust territory request, there is also an increase of $2½ million. This is primarily for the improvement of our educational and health activities and services in the trust territories. Then, we have requests for the various Governors' offices, for the Virgin Islands, for Guam, for our office here in Washington.

Mr. Chairman, this just about highlights the statement for 1965. I understand that we are to take up, also, the supplemental for Guam for 1964 and this is a request of $11,464,000, if it pleases you, Mr. Chairman. I have with us today our territorial officials. We have the High Commissioner of the Trust Territory; we have the Governor of Guam, Mr. Guerrero; and because of the requirement of our statute, which sets up the authorization bill for the rehabilitation of Guam, we have with us today, Mr. Won Pat, the speaker of the Guam Legislature, who merely desires to insert a statement from the legislature about their concurrence with the Governor's request of this year.

Governor Lee of American Samoa is out of the room for a few minutes, but he will be right back. These officials will be able to answer in detail your questions.

Chairman HAYDEN. The major new item in the request this year is the need for funds to implement the Guam Rehabilitation Act, Public Law 88–170, November 4, 1963. There is also a supplemental estimate for this purpose in the amount of $11,464,000 which may be included in the record at this point.

(The justification estimate referred to follows:)

JUSTIFICATION STATEMENT

*Administration of territories*

| | |
|---|---|
| Request (for 6 months from Jan. 1, 1964) | $11, 464, 000 |
| Appropriation to date | 13, 000, 000 |
| Obligations to Nov. 30, 1963 | 7, 179, 385 |
| Expenditures to Nov. 30, 1963 | 7, 096, 516 |
| Budget estimate next fiscal year | 18, 814, 000 |

PURPOSE AND NEED FOR ADDITIONAL FUNDS

The $11,464,000 is urgently needed to initiate a complete rehabilitation program for Guam involving all major island facilities because of the extensive damage wrought by typhoons which struck the area in November 1962 and April 1963. Of the total amount requested, not to exceed $200,000 shall be available to carry out the purposes of section 6 of the Guam Rehabilitation Act, Public Law 88-170, approved November 4, 1963.

GUAM REHABILITATION PROGRAM

Public law: The Guam rehabilitation bill provides for a grant and loan program not to exceed $45 million for the rehabilitation of the territory of Guam. Such rehabilitation is needed (1) to replace public facilities destroyed as a result of Typhoon Karen in November of 1962 and (2) to replace worn out World War II temporary public facilities with more modern and efficient construction to provide a setting whereby Guam may develop its social and economic potential to a greater level of self-sufficiency.

The act provides that all projects other than water, power, and telephone service, for which funds are appropriated under its authorization, will have 50 percent of its costs returned to the U.S. Treasury; for water, power, and telephone projects, the appropriations will be in the form of 100-percent loans. All moneys returned to the Treasury will be at an interest rate fixed by the U.S. Treasury and will be amortized over a period of 30 years.

This supplemental request of $11,464,000 is the first phase of the rehabilitation program which primarily funds projects required because of the destruction caused by Typhoon Karen.

*George Washington High School, $1,742,000*

This school consisting of quonsets completely demolished by Typhoon Karen, was located in path of jet planes landing at naval air station. Reconstruction on permanent basis in new area is necessary.

The construction is for an estimated enrollment of 1,500 at an estimated construction cost of $2,450 per student for a total of $3,675,000. Cost breakdown is:

| | |
|---|---|
| Labor | $1,732,500 |
| Materials | 1,417,500 |
| Equipment | 525,000 |
| Total | 3,675,000 |
| Less OEP funds | 1,933,000 |
| Net | 1,742,000 |

*George Washington Junior High School, $1,536,000*

This quonset school was badly damaged by Typhoon Karen and in poor location under jet landing pattern. Reconstruction in new area is required for 800 students estimated at $1,920 per student. It presently has 541 students but will be supplemented by over 200 additional students from Tumon Junior-Senior High School when it is converted to a senior high school only. Cost breakdown is:

| | |
|---|---|
| Labor | $739,200 |
| Materials | 604,800 |
| Equipment | 192,000 |
| Total | 1,536,000 |

*Chalan Pago Elementary School, $351,000*

The old school is quonset type and was completely destroyed by the typhoon. This is one of the facilities which must be replaced on an enlarged scale to meet the overall elementary expected enrollment. The project is for 500 enrollment at an estimated cost of $1,300 per student for a total project cost of $650,000. Cost breakdown is:

| | |
|---|---|
| Labor | $312,812.50 |
| Materials | 255,937.50 |
| Equipment | 81,250.00 |
| Total | 650,000.00 |
| Less OEP funds | 299,000.00 |
| Net | 351,000.00 |

*Barrigada Elementary, $332,000*

Like the Chalan Pago School, the old Barrigada School was demolished by the typhoon and needs to be replaced with a larger facility for the projected enrollment of 500 students. However, the total cost $650,000 less OEP funds of $318,000 leaves a net amount of $332,000. Cost breakdown is:

| | |
|---|---|
| Labor | $312, 812. 50 |
| Materials | 255, 937. 50 |
| Equipment | 81, 250. 00 |
| Total | 650, 000. 00 |
| Less OEP funds | 318, 000. 00 |
| Net | 332, 000. 00 |

*Talofofo Elementary, $264,000*

Again, this school was destroyed and must be replaced. The project is for an enrollment of 350 students at $1,300 per student for a total cost of $445,000. Cost breakdown is:

| | |
|---|---|
| Labor | $218, 968. 75 |
| Materials | 179, 156, 25 |
| Equipment | 56, 875. 00 |
| Total | 455, 000. 00 |
| Less OEP funds | 191, 000. 00 |
| Net | 264, 000. 00 |

*Tumon Junior-Senior High School, $225,000*

This project covers the conversion from junior-senior to exclusively senior high school usage, with a capacity of 1,500 students. Tumon and the new George Washington Senior High School will then meet the total requirements for senior high school facilities.

This school was constructed for an enrollment of 1,500 students, but as a junior-senior high school. To convert this facility to a senior high school requires—

1. Eight classrooms to be equipped as science and biology laboratories, complete with fixed equipment and necessary utilities.
2. Enlargement of the cafeteria, including kitchen and storage areas, and the addition of a second serving line.
3. Enlargement of the physical education area, including additional shower and dressing facilities for both sexes.
4. Construction of an additional shoproom, one-story concrete to match present shops.
5. Acoustic treatment of the bandroom to permit adjacent areas to be used as classrooms. Provisions for dehumidified storage for band instruments.
6. Stairway revisions to provide for increased traffic during class change periods.

*Estimate*

| Item | Labor | Equipment | Material | Total |
|---|---|---|---|---|
| 1. Convert 8 classrooms to laboratories | $3, 500 | $71, 000 | $7, 000 | $81, 500 |
| 2. Enlargement of cafeteria facilities | 25, 000 | 9, 000 | 38, 000 | 72, 000 |
| 3. Enlargement of physical education area | 16, 000 | ---------- | 25, 000 | 41, 000 |
| 4. Construction of additional shop | 9, 000 | ---------- | 14, 000 | 23, 000 |
| 5. Band room alterations | 1, 200 | 2, 000 | 1, 800 | 5, 000 |
| 6. Stairway revisions | 1, 000 | ---------- | 1, 500 | 2, 500 |
| Total | 55, 700 | 82, 000 | 87, 300 | 225, 000 |

*Tamuning-Dededo Junior High (new), $1,536,000*

This school is needed to absorb part of the junior high students who will need other quarters when Tumon Junior-Senior High is converted to a senior high school only. At present there are 1,041 junior high students. They will be distributed between this school and the new George Washington Junior High (item 2).

This project is for an estimated 800 school enrollment at $1,920 per student for a total cost of $1,536,000. Detail cost estimate is:

| | |
|---|---|
| Labor | $739,200 |
| Materials | 604,800 |
| Equipment | 192,000 |
| Total | 1,536,000 |

*Agat-Santa Rita Elementary School, $455,000*

Population expansion and additional military children requires additional school near Navy base. Estimated cost $455,000 for 350 students at a cost of $1,300 per student.

| | |
|---|---|
| Labor | $218,968.75 |
| Materials | 179,156.25 |
| Equipment | 56,875.00 |
| Total | 455,000.00 |

*Dededo Elementary School, $244,000*

This school and the Yigo Elementary School were of frame and quonset-type construction, and were completely demolished by the typhoon. This project proposes to replace the two schools with a new permanent-type facility, adjacent to the village of Dededo. This school would be a 500-student project, with an estimated total cost of $650,000. Cost breakdown is:

| | |
|---|---|
| Labor | $312,812.50 |
| Materials | 255,937.50 |
| Equipment | 81,250.00 |
| Total | 650,000.00 |
| Less OEP funds | 406,000.00 |
| Net | 244,000.00 |

*Merizo Elementary School, $165,000*

This school was badly damaged by the typhoon and is uneconomical to reconstruct. Replacement of this facility in permanent-type construction is necessary to accommodate the number of pupils enrolled.

The project covers a school of 300 students at an estimated cost of $1,300 per student, or a total project cost of $390,000. Cost breakdown is:

| | |
|---|---|
| Labor | $187,500 |
| Materials | 153,750 |
| Equipment | 48,750 |
| Total | 390,000 |
| Less OEP Funds | 225,000 |
| Net | 165,000 |

*Trade and technical school (partial construction), $432,600*

The trade and technical school is presently conducting classes and shop activities in buildings which were hastily repaired. Needed immediately are six shop buildings and the administration building. Classes may be held in the shop building as a temporary measure. This is not desirable but has to be done even if the other buildings are being constructed at the same time. It takes longer to construct the concrete and hollow tile than the prefabricated metal shop buildings. The other buildings needed, but may be deferred another year, are 4 shop buildings, a 20-classroom building, and a building for 8 drafting rooms and cafeteria.

The cost breakdown is:

| | |
|---|---|
| 6 prefabricated steel buildings, each 60 by 140, at $21 per square foot | $604,800 |
| 1 administration building, 60 by 30, 1,800 square feet, at $20 | 36,000 |
| Site preparation | 30,800 |
| Total cost | 671,600 |
| Less OEP funds | 239,000 |
| Additional funds required | 432,600 |

The cost breakdown is:

| | |
|---|---|
| Labor | $268,000 |
| Materials | 335,800 |
| Equipment | 67,800 |
| Total | 671,600 |

*Department of education, administration building, $56,000*

The administration building, which was damaged severely by Typhoon Karen was evaluated by OEP at $193,000 based on replacement of the old quonset hut with prefabricated metal buildings.

For permanency, it is proposed that the building be constructed of concrete. The building will be two stories high with a ground floor office area of 39.5 by 96 (3,792 square feet) and 10-foot corridors on the longitudinal sides. The second floor will have an office area of 45 by 96 (4,320 square feet) and 10-foot corridor.

| | |
|---|---|
| 1st floor: | |
| Office area, 3,792 square feet, at $26 | $98,592 |
| Corridors, 1,920 square feet, at $12 | 23,040 |
| 2d floor: | |
| 4,320 square feet, at $25 | 108,000 |
| Corridor, 960 square feet, at $14 | 13,440 |
| Equipment room, 88 square feet, at $18 | 1,584 |
| Site work | 4,344 |
| Total cost | 249,000 |
| Less OEP funds | 193,000 |
| Additional funs required | 56,000 |

The cost breakdown is:

| | |
|---|---|
| Labor | 99,600 |
| Materials | 124,500 |
| Equipment | 24,900 |
| Total | 249,000 |

*Juvenile home (partial), $121,200*

The juvenile home which was damaged completely by Typhoon Karen was housed in a quonset hut. Its replacement-in-kind was evaluated at $75,000 by OEP.

At the present time the inmates are housed in makeshift structures.

The plan is to construct four permanent-type dormitories, an administrative office, and a prefabricated metal shop. This complex will have a maximum capacity of 80 inmates.

The present population varies from 18 to 25 inmates. For the first increment, two dormitory buildings and workshops are needed.

Each dormitory building will contain a large dormitory room for 16 inmates, 4 isolation cells, kitchen, toilets, living room, dining area, and storage.

The shop building shall contain an auto shop, mechanics shop, vocational shop, all-purpose room, and administrative offices.

The estimate of cost for the present need is:

| | |
|---|---|
| 2 concrete and hollow-tile dormitories, 30 by 120, 7,200 square feet, at $16 | $115,200 |
| 1 prefabricated metal shop building, 168 by 30, 5,080 square feet, at $12 | 60,960 |
| Site preparation, fencing, and playgrounds | 20,040 |
| Total | 196,200 |
| Less OEP funds | 75,000 |
| Additional funds required | 121,200 |

The cost breakdown is:

| | |
|---|---|
| Labor | $78,480 |
| Materials | 98,100 |
| Equipment | 19,620 |
| Total | 196,200 |

*Penitentiary (partial construction), $169,000*

This project requires the construction of a new penitentiary to replace the one destroyed completely by Typhoon Karen. Needed immediately, is a facility for a dormitory unit containing 30 bunks and 10 isolation cells, an administration building, and workshops. The cost breakdown is:

| | |
|---|---|
| Men's dormitory containing 30 bunks, 1 toilet and shower room, 1 dining and day room—hollow tile and concrete roof, 5,883 square feet, at $16 | $94,128 |
| Administrative and service building containing storeroom, laundry, kitchen, classroom and library, records and control rooms, employees' dining, office, waiting and visiting room—hollow tile and concrete roof, 4,780 square feet, at $18 | 86,040 |
| Shop building—prefabricated metal building, containing auto repair shop, hobby shop, vocational trades classroom, 3,584 square feet, at $14 | 50,176 |
| Site preparation, security fence, water, sewerage, electrical and tower | 88,656 |
| Total | 319,000 |
| Less OEP funds | 150,000 |
| Additional funds required | 169,000 |

The cost breakdown is:

| | |
|---|---|
| Labor | $127,600 |
| Materials | 159,500 |
| Equipment | 31,900 |
| Total | 319,000 |

*General government buildings and facilities—Public works (utilities), $201,600*

This project covers the construction of new facilities to replace those damaged by the typhoon. The buildings are to be relocated adjacent to the proposed public works area. The project covers construction of a permanent type administration building, a steel frame warehouse for the power division, and a similar structure for the water division. Paved and fenced open storage areas will be provided for pole and pipe storage. Estimated cost is $233,600 less OEP funds $32,000, net $201,600. Cost breakdown is:

| | |
|---|---|
| 1-story building for administration building—concrete and hollow tile building, 40 by 90 feet, 3,600 square feet, at $16 | $57,600 |
| Warehouse for power section—1 prefabricated metal building, 40 by 100 feet, 4,000 square feet, at $12—$48,000 × 2 | 96,000 |
| Warehouse for water section—1 prefabricated metal building, 40 by 100 feet, 4,000 square feet, at $12 | 48,000 |
| Paving—20,000 square feet, at $0.30 | 6,000 |
| Fencing—2,000 linear feet, at $2.50 | 5,000 |
| Engineering and contingencies | 21,000 |
| Total | 233,600 |
| Less OEP funds | 32,000 |
| Additional funds required | 201,600 |

The cost breakdown is:

| | |
|---|---|
| Labor | $93,440 |
| Materials | 116,800 |
| Equipment | 23,360 |
| Total | 233,600 |

*Public works, $319,000*

The department of public works office and shop buildings were approximately 75 percent destroyed by Typhoon Karen. Presently, the department is operating in makeshift shape and offices. The proposed project includes the construction of one concrete and hollow tile office building, three preengineered metal buildings for shops, equipment sheds, and parking areas. The estimated cost is $744,000, less OEP funds $425,000, net $319,000. The OEP funds will not even suffice for the construction of the three preengineered metal buildings.

The cost breakdown is:

| | |
|---|---|
| Office building—Concrete and hollow tile with concrete roof—7,743 square feet, at $20 | $154,860 |
| Dispatcher's office—240 square feet, at $16 | 3,840 |
| 2 parking sheds—5,760 square feet, at $3 | 17,280 |
| Gas pumps and tank | 4,000 |
| 3 80- by 200-foot preengineered metal buildings without partitions, concrete floor—3, at $130,000 | 390,000 |
| Equipment shed, tire storage, and grease pit—8,800 square feet, at $9 | 79,200 |
| Site preparation, grading parking areas, fencing, water, power, and sewer | 94,820 |
| Total | 744,000 |
| Less OEP funds | 425,000 |
| Additional funds required | 319,000 |

The cost breakdown is:

| | |
|---|---|
| Labor | $297,600 |
| Materials | 372,000 |
| Equipment | 74,400 |
| Total | 744,000 |

*Procurement and supply warehouse, $563,000*

The project covers the replacement of the damaged and destroyed procurement and supply division storage area by relocation of a new area near commercial port. The functions of the present scattered small warehouses will be concentrated in two 100- by 200-foot permanent type warehouses, consisting of structural steel frame sections, equipped with a sprinkler system. An adjacent 200- by 200-foot paved and fenced area will provide for open storage requirements. Estimated cost is $637,000 less OEP funds $74,000, net $563,000. Cost breakdown is:

| | |
|---|---|
| Warehouse (2) 100 by 200 feet—40,000 square feet, at $12 | $480,000 |
| Overhang (2) 10 by 200 feet—4,000 square feet, at $6 | 24,000 |
| Sprinkler system | 60,000 |
| Fencing, 3,200 linear feet, at $1 | 3,200 |
| Paving, 200 by 200 feet—40,000 square feet, at $0.30 | 12,000 |
| Engineering and contingencies | 57,800 |
| Total | 637,000 |
| Less OEP funds | 74,000 |
| Additional funds required | 563,000 |

The cost breakdown is:

| | |
|---|---|
| Labor | $254,800 |
| Materials | 318,500 |
| Equipment | 63,700 |
| Total | 637,000 |

*Sewer system, $220,000*

This project covers the preparations of plans and specifications for the following proposed sewer systems. Only the city of Agana and the village of Agat are now sewered.

| Location: | *Estimated cost* |
|---|---|
| 1. Central area: | |
| (a) Agana Heights | $305,000 |
| (b) Barrigada | 550,000 |
| (c) Mongmong-Toto-Maina | 300,000 |
| (d) Sinajana | 370,000 |
| (e) Tamuning | 650,000 |
| (f) Anigua | 125,000 |
| (g) Treatment plant | 500,000 |
| (h) Interceptors to villages | 700,000 |
| Subtotal | 3,500,000 |
| 2. Dededo: | |
| (a) 45,000 feet of 8–18 inch | 350,000 |
| (b) Treatment plant | 50,000 |
| Subtotal | 400,000 |
| 3. Yona: | |
| (a) 21,400 feet of mains | 167,000 |
| (b) Treatment plant | 33,000 |
| Subtotal | 200,000 |
| 4. Asan-Piti: | |
| (a) 26,200 feet of mains | 205,000 |
| (b) Intercepts | 48,000 |
| (c) Treatment plant | 47,000 |
| Subtotal | 300,000 |
| Total | 4,400,000 |
| Engineering fees at 5 percent | 220,000 |
| The cost breakdown is: | |
| Labor | 1,760,000 |
| Materials | 2,200,000 |
| Equipment | 440,000 |
| Total | 4,400,000 |

*Dededo water wells, $290,200*

One of the areas which will grow rapidly is Dededo where there is a large tract of land owned by the government of Guam. The land can be developed as a housing area for families displaced by the typhoon. Dededo is presently drawing water from the U.S. Air Force but the supply is limited. The existing U.S. Navy lines terminating at Tamuning could not be extended to Dededo because of the limitation in the quantity of water which can be drawn from the U.S. Navy and also due to the small size of existing transmission lines.

The project proposes the construction of two wells and pumps, one ground level reservoir and pumps, two elevated reservoirs, and interconnecting pipes, valves, and other appurtenances.

The wells will yield 300,000 gallons per day to serve an estimated population of 3,000 persons.

| | *Estimated cost* |
|---|---|
| 2 wells, each 10 inches in diameter, 380 feet deep (with casing), at $2 per foot | $15,200 |
| 2 deep-well pumps with water column, well point, 300-gallon-per-minute capacity, 2, at $25,000 | 50,000 |
| 1 concrete 400,000-gallon reservoir at ground level | 80,000 |
| 2 100,000-gallon elevated steel reservoirs, at $50,000 | 100,000 |
| Connecting pipes and valves between wells, 8-inch-diameter cast iron pipe, 1,500 linear feet, at $10 | 15,000 |
| Connecting pipes and valves from ground reservoir to elevated reservoirs, 8-inch-diameter cast iron pipe, 2,000 linear feet, at $10 | 20,000 |
| 2 electric pumps, at $5,000 | 10,000 |
| Total cost | 290,200 |

The cost breakdown is:

| | |
|---|---|
| Labor | $116,080 |
| Materials | 145,100 |
| Equipment | 29,020 |
| Total | 290,200 |

*Village development, $2,241,400*

The estimate of $2,241,400 for fiscal 1964 provides for the initial phase of this program, the total cost of which is estimated at approximately $12.1 million, $6 million of which is to be financed by the Guam rehabilitation bill. This project anticipates total requirement for Yona, acquisition of new subdivision land for Sinajana and development, and acquisition of new subdivision land for Asan and development.

| | |
|---|---|
| Yona: | |
| New land acquisition (46 acres) | $119,300 |
| Condemnation (present properties, 168) | 240,500 |
| Development (180 lots) | 484,000 |
| Demolition (168 structures) | 33,600 |
| Yona, total | 877,400 |
| Sinajana: | |
| New land acquisition (44 acres) | 264,000 |
| Development (500 lots) | 600,000 |
| Sinajana, total | 864,000 |
| Asan: | |
| New land acquisition | 200,000 |
| Development | 300,000 |
| Asan, total | 500,000 |
| Grand total | 2,241,400 |

*Object classification*

[In thousands of dollars]

| | | 1965 presently available | 1964 revised estimate | 1964 increase |
|---|---|---|---|---|
| 11 | Personnel compensation: | | | |
| | Permanent positions | 642 | 642 | |
| | Positions other than permanent | 20 | 20 | |
| | Other personnel compensation | 123 | 123 | |
| | Total, personnel compensation | 785 | 785 | |
| 12 | Personnel benefits | 50 | 50 | |
| 21 | Travel and transportation of persons | 68 | 68 | |
| 22 | Transportation of things | 13 | 13 | |
| 23 | Rent, communications, and utilities | 23 | 23 | |
| 24 | Printing and reproduction | 11 | 11 | |
| 25 | Other services | 15 | 15 | |
| 26 | Supplies and materials | 22 | 22 | |
| 31 | Equipment | 11 | 11 | |
| 33 | Investment and loans | | 5,877 | 5,877 |
| 41 | Grants, subsidies, and contributions | 12,002 | 17,589 | 5,587 |
| | Total obligations | 13,000 | 24,464 | 11,464 |

REHABILITATION PROGRAM

Chairman HAYDEN. The supplemental estimate is for the first phase, and the $10 million included in the fiscal year 1965 budget is to accomplish a second phase of the rehabilitation program. Your statements advise that the rehabilitation is required (1) to replace public facilities destroyed by Typhoon Karen in November of 1962, and (2) to replace worn out World War II temporary public facilities. Would you please tell the committee how much each of these two aims is estimated to cost?

Mr. TAITANO. Thank you very much. I have the Governor of Guam here, Mr. Guerrero.

Mr. GUERRERO. Mr. Chairman, thank you very much, sir. I have a statement here which I would like to file.

Chairman HAYDEN. You may do that.

(The statement referred to follows:)

STATEMENT OF MANUEL F. L. GUERRERO, GOVERNOR OF GUAM

Mr. Chairman, members of the committee, and friends, I am deeply grateful for the privilege of appearing here today and for the opportunity to discuss appropriation proposals for Guam under our territory's rehabilitation capital improvement bill which was passed by the Congress late last year.

I feel that this committee is familiar, to a great degree, with Guam, with our problems, and with our desires to solve them through our own efforts as well as through any assistance we merit from the Congress.

Members of your committee and your staff have visited our island, and I have always been impressed by your ability to comprehend and appreciate our needs and by your sympathetic determination to give our territory reasonable help.

I have with me today Mr. George Ingling, who has been with the government of Guam for 8 years. Mr. Ingling retired several years ago from the Federal Internal Revenue Service, and has served our government as tax commissioner, director of finance, and now as assistant secretary on the Governor's staff, with great credit. His principal duty as assistant secretary is to keep the rehabilitation program under continual scrutiny—to see that we get full value for every dollar spent. He will assist me in answering your questions.

It was just about 1 year ago that I appeared before several House and Senate committees. I was Acting Governor at that time, and I attempted then to describe the devastation our island suffered during Typhoon Karen in November 1962.

I also discussed our other needs which I felt would not only help us recover from the storm but would place our territory on a firmer footing economically, so that we could progress on our own on a long-range basis.

We on Guam feel that the programs we are discussing today are vital to the island's rehabilitation. They have had detailed attention from people in our Government, in the Interior Department, the Bureau of the Budget, and various other Federal agencies.

In a recent magazine interview I was asked if I felt that a dedicated American could serve both the Federal Government, as an appointed Governor of Guam, and the territory, without sacrificing the interests of either. My reply was that I saw no conflict in serving as a Federal appointed Governor, because the best interests of Guam and the United States are never in conflict.

I feel the same way about the Guam rehabilitation program. I honestly believe it is good for Guam and for the United States.

Now, in the interest of brevity, I will not attempt to discuss individual allocations in the proposed appropriations. However, we do have with us information which I feel will fully justify individual requests and we would, of course, be pleased to discuss them with members of the committee.

At the moment, I would like to direct your attention to one facet of action under the supplemental budget request which I feel is very important.

Soon after Typhoon Karen ravaged our island, destroying over 90 percent of our public and private structures, President Kennedy declared Guam a natural disaster area and, as a result, we eventually received allocations of about $16 million from the Office of Emergency Planning for replacement of public facilities.

It was our feeling—and the feeling of everyone up the line—that it would be highly inadvisable to use this OEP money to replace the jerry-built pretyphoon structures with jerry-built posttyphoon structures which would not withstand future storms. For that reason we have worked during the past year with the Navy, which has contracted architectural and engineering services, on a more permanent program of rebuilding.

In every case possible we have planned to supplement OEP funds in order to build modern and adequate structures with stormproof concrete instead of the wood and tin which the OEP financing would have provided.

A large majority of these projects are school buildings. We have pledged slightly over $4.5 million of our OEP funds in these areas, our plans are being completed, and we are nearing the day when we should contract these construction jobs. But we cannot secure clearance for use of the OEP funds until we are certain of the financing we will need to complete these jobs, and that financing is included in the supplemental budget bill.

Almost $9 million of the proposed $11.4 million in the supplemental is earmarked for these particular projects, and this money is urgently needed so we can contract them and push them to completion under the joint-funding plan which will use OEP and rehabilitation bill funds without a loss of continuity and a consequent loss of vitally needed dollars from each of the two areas.

Now, in speaking of the rehabilitation bill as a whole, I feel that I should give the committee some assurances on two counts. I am referring to the probable effectiveness of the bill in helping us develop a more stable economy in the future; and to the ability of the territory to repay the portions of the funds which are to be reimbursable to the Treasury.

Admittedly, I can only give you indications of assurances because Guam's economic growth has been hamstrung through the years and only in recent months have we seen evidence of real advancement.

You are familiar, I am sure, with our history of naval government from the Spanish American War until the capture of Guam by enemy forces after Pearl Harbor.

There followed almost 4 years of cruel enemy occupation, which ended with the bombardments of the U.S. forces which brought our liberation.

We functioned again under U.S. military governments until 1950, when the Organic Act was signed, and went through periods of postwar reconstruction in which economic development was hampered by various factors. These include, among many others, Guam's inability to fully recover from the devastation of World War II and certain defense requirements in Guam.

All these things have combined, through the years, to offset progress, although I believe our accomplishments since 1950 have equaled those of any infant government in 14 years, despite these difficulties.

I would hesitate to call the typhoons blessings in disguise, but they did create the need for new construction in all fields and they did instill in our people strong determinations to survive and better our community.

In the trying months since November 1962, our executive branch has functioned with top efficiency, our legislature has shown good judgment and foresight; and our business community has become more progressive in every respect.

On Guam today we are seeing activities and hearing plans which would not have existed except in the wildest dreams a few years ago.

For the first time outside capital is becoming interested in Guam. The Henry J. Kaiser interests have launched a large-scale homebuilding program, and are studying other ventures. Honolulu Gas Co. is investigating the possibilities of placing bottled gas on the market in a move which could lower utility costs, reduce our burden of providing electric power, and eventually lead to some industrial developments. American Telephone & Telegraph has constructed and will shortly open a tremendous underground cable station which will give us our first underwater communications link with the United States and the Far East.

A Guam firm, Jones & Guerrero, operating on the west coast run, recently began chartering ships in an effort to reduce our high freight rates which cause us to pay $600 more for a compact automobile than you pay on the mainland.

Two local groups have started small charter airlines, which we hope to see develop to increase service between Guam and the islands of the trust territory.

We have received indications of activity in the commercial fishing field, and are working on programs for the utilization of large tracts of unused land for commercial farming expansions.

There are indications that the only thing delaying development of a tourist industry is the lack of a modern hotel, and while on the mainland I hope to discuss the possible development of one with a number of groups.

Our strategic importance on Guam is being emphasized by facility expansions by the Federal Aviation Agency, as well as the Navy, which soon will open a POLARIS base which will increase our military population by several hundred families.

Our local business community has not been idle during the past year, and new buildings are springing up in Agana and other business areas.

During 1963, 1,746 residential building permits for new construction and repairs were issued, for a total of $7,752,946, and 157 commercial permits accounted for $2,897,284 in construction.

The Small Business Administration, which opened shop in Guam shortly after Typhoon Karen, has approved applications for 809 home loans totaling $7,151,261, and for 105 business loans totaling $2,441,938.

The SBA's overall approval total of $9.5 million is expected to increase substantially, as the office still has over 250 applications to process.

Many of these things may provide our economy only a temporary stimulant, so we are making every effort to move forward on a long-range basis.

One of our greatest needs is the development of more skills among our local people. Included in the supplemental budget are funds for the construction of a new trade and technical school to replace the inadequate facility destroyed by Typhoon Karen, and we hope to be able to accommodate 1,000 students in the next few years. I intend to make every possible effort to upgrade the status of this school and make the various skills which will be tailored to local demands attractive to our young people.

I have cited some of the developments of the past year and some of the things which we expect in the coming months. All of them give me confidence in our eventual success in making Guam a full member in the American community.

But the thing which gives me the most confidence is the faith of our people.

I recall that in December 1962, 1 month after Typhoon Karen, when Guam still was a shambles, the first installment on our real estate taxes, totaling $622,953, came due.

Our people not only paid that installment, they overpaid it by over $25,000, when many of them paid both the first and second installments.

And many of them were paying on homes which had been destroyed in the storm.

I have seen that same spirit demonstrated time and again, and it not only gives me confidence—it gives me pride in my fellow Americans on Guam.

Our problems on Guam are not solved.

But with the continued sympathetic assistance and guidance which this committee has always shown us, they will be solved, because our people are dedicated to their solution.

Forgive me for taking so long, and again let me thank you for the opportunity of appearing here today.

### Typhoon Destruction

Mr. Guerrero. And I would like to brief the committee of what these moneys are requested for. We are asking for moneys to take care of our schools, both on the junior level, the senior level, and the elementary level. We have many of our schools that were destroyed after the two typhoons and we have many of our public facilities that were destroyed after the two typhoons.

We are also asking for some money to take care of the air terminal, and we are asking for some money to take care of our water resources and sewer system. This is in accordance with Public Law 88–170.

### Time Required To Accomplish Rehabilitation

Chairman Hayden. How many years do you estimate will be required to accomplish the authorized rehabilitation?

Mr. Guerrero. We have a plan that has been already made. Since Typhoon Karen in December 1962 we started working on our plans, designs, and architectural needs. We have a timetable here of how this money will be expended, when it will be expended, and just about when these plans will be available.

Chairman Hayden. What is the ultimate date?

Mr. Guerrero. The ultimate date on the supplemental budget, we will be able to obligate and contract it by July this year, sir. On the 1965 budget, we will be able to obligate and contract it by January 1965.

I would like to insert for the record the schedules of these things.

Chairman Hayden. They may be included in the record.

(The schedules referred to follow:)

### The 1964 Supplemental Budget Request (Guam)

Project and final plans due:

George Washington High School, April 10, 1964.
George Washington Junior High School, April 20, 1964.
Chalon Pago Elementary, February 28, 1964.
Barrigada Elementary, February 28, 1964.
Talofofo Elementary, plans prepared.
Tumon Junior-Senior High School conversion, March 1, 1964.
Dededo Junior High School, April 20, 1964.
Agat-Santa Rita Elementary, April 20, 1964.
Dededo Elementary, February 28, 1964.
Merizo Elementary, February 28, 1964.
Trade and technical school, April 10, 1964.
Department of Education administration building, May 26, 1964.
Public Works Buildings, May 26, 1964.
Public Utilities Buildings, May 26, 1964.
Procurement and Supply Warehouse, May 1, 1964.
Penitentiary, March 4, 1964.
Juvenile Home, May 26, 1964.
Sewer system plans, awaiting funds requested 1964 budget.
Dededo wells and pumps, April 30, 1964.

Village development:
Yona:
New land acquisition, appraisal made, ready to proceed.
Development, start when land acquired.
Old land, building purchase, under urban renewal project.
Building demolition, under urban renewal project.
Sinajana:
New land acquisition, appraisal made, ready to proceed.
Development, start when land acquired.
Asan:
New land acquisition, appraisal made, ready to proceed.
Development, start when land acquired.
1965 budget request (Guam):
College Guam library, July 15, 1964.
College Guam classroom, July 15, 1964.
Sewer system, November 15, 1964.
Air terminal, July 15, 1964.
Commercial port plans, awaiting funds appropriation.
Utilities:
Water lines and tank replacement, general layout completed, can complete final plans 60 days after funds available.
Power contribution, plant construction under way, completion, December 1964.

COSTS IN THE FORM OF LOANS

Chairman HAYDEN. I note that 50 percent of all costs for projects other than water, power, and telephone service will be returned to the United States. The costs of the water, power, and telephone projects will be in the form of 100 percent loans which, I assume, will be returned in toto to the U.S. Treasury. Is that correct?

Mr. GUERRERO. Yes, sir. This is according to Public Law 88–170.

ACCELERATED PUBLIC WORKS PROJECTS

Chairman HAYDEN. Have any accelerated public works projects been constructed in Guam?

Mr. GUERRERO. No, sir.

Chairman HAYDEN. You have none at all?

Mr. GUERRERO. No, sir.

RESULTS OF LATE ENACTMENT OF SUPPLEMENTAL APPROPRIATIONS

Chairman HAYDEN. For a portion of the planned projects, for instance sewer system and drainage, advance planning funds have been requested as a part of the fiscal year 1964 supplemental estimate. What will be the situation if the supplemental estimate is enacted very late in the current fiscal year? Will you still need the same amount of funds to carry on your planned 1965 program?

Mr. GUERRERO. If the supplemental is enacted late, sir, we will be forced to continue with many of the problems that we are now faced with, double sessions in schools, operating in temporary facilities, and the expenditure of the Government will be tremendous just to keep this thing going.

We have schools that were destroyed so that we have to send children from villages to other villages farther away by transportation, and this program, incidentally, is also predicated on the basis of our needs since December 1962 when the typhoon struck Guam. We have been overdue in asking for this loan, sir.

Chairman HAYDEN. You would like to get the money as soon as possible, then?

POWER PRODUCTION AND DISTRIBUTION PROJECT

On page 19 of your estimates, in discussing the power production and distribution project, for which you estimate a need of $2 million, you indicate that the Legislature of Guam has appropriated $3 million as a first increment of the cost and that $2 million is now estimated as the contribution of the Government of Guam for the second increment. Is the $2 million referred to here a grant or a loan?

Mr. GUERRERO. This is a loan, sir.

Chairman HAYDEN. Do you have any questions you want to ask about Guam?

Senator BIBLE. Mr. Chairman, I want to compliment Governor Guerrero and his group for the fine job they are doing in Guam and particularly on the rehabilitation efforts.

TOTAL COST OF REHABILITATION

So that I might have a bird's-eye view of the overall picture and the total costs, what is your estimate, Governor, of the total cost of the rehabilitation of Guam?

Mr. GUERRERO. Sir, when we first started to estimate this thing, we presented to the Department of Interior an amount close to about $72 million. Of course, through revisions and changes, it came down to $56 million when we asked for the authorization, then Congress considered it and changed it to $45 million.

Senator BIBLE. Correct.

Mr. GUERRERO. I would like to point out that every year we delay the construction costs and supplies and material and labor will add about 3 percent, normally. So, I cannot just guess how much. If it takes us 10 years, sir, that is a long time and it is going to cost a lot of extra money.

AUTHORIZED EXPENDITURES

Senator BIBLE. You are authorized to spend $45 million.

Assuming that that is made available to you at a reasonable timetable, without delay, how effective a job will that do in rehabilitation?

Mr. GUERRERO. It will do the job, sir. Of course, the responsibility of the people will have to be responsive. In this case, the people, too, themselves, they would have to help, and not necessarily just wait for the Federal Government to help. In this way, I mean to say, there are agencies in the Government that the people can take advantage of like FHA, SBA, and other facilities that we from time to time, the people individually, can take advantage of.

Senator BIBLE. Refresh my memory as to the authorizing act, Governor Guerrero. Is the $45 million partly loan and partly grant?

LOAN AND GRANT

Mr. GUERRERO. It is more loan than grant.

Senator BIBLE. How much of it is loan, at this time, 50 percent?

Mr. GUERRERO. About two-thirds.

Senator BIBLE. About two-thirds is on a loan basis. And that is loaned and repaid by Guam over how long a period of time?

Mr. GUERRERO. For 30 years.

Senator BIBLE. And one-third is an outright grant?

Mr. GUERRERO. Yes, sir.

Senator BIBLE. How many years will it take to effectively and economically use this $45 million? What is your timetable? You are asking for $11 million now by way of a supplemental.

Mr. GUERRERO. Yes, sir. We have until 1973 to effectively use this money.

Senator BIBLE. The point you make is that the more delay there is the more it will cost you?

Mr. GUERRERO. Yes, sir.

### REPAYMENT OF LOAN

Senator BIBLE. How soon will Guam, itself, be able to set up the machinery for the repayment of this loan? Would this money be best used if you had it within the next 3, or 4, or 5 years?

Mr. GUERRERO. Under the law, the money that we will have to repay, we have started repaying in the 5 years since the date we started to get the money. That means, sir, that we have to try to utilize all we can and be responsive to what appropriation is given to us, so that we can best utilize the funds.

Senator BIBLE. Are you talking about a 3- to 4-year program? Is that it?

Mr. GUERRERO. A 5-year program.

Senator BIBLE. You would like to receive all of the $45 million within the period of 5 years? That is all I am trying to develop, because we find frequently that it is false economy to make the money available at an earlier date. Again, I commend you for the fine work you are doing, Governor Guerrero.

Senator YOUNG. May I ask a few questions?

Chairman HAYDEN. Yes.

### MILITARY ASSISTANCE IN RECONSTRUCTION

Senator YOUNG. Is the military helping some in the reconstruction? Or is what you are asking for entirely separate?

Mr. GUERRERO. What we are asking is entirely separate, but we have, at the moment, an agreement for contract administration with the Navy. The Navy is doing the contracting administration and architectural work for many of our projects.

Senator YOUNG. And they are doing this free?

Mr. GUERRERO. No, sir. We are going to pay them about 70 percent.

Senator YOUNG. You have to pay for it?

Mr. GUERRERO. Yes, sir.

### FINANCING PRIVATE HOMES

Senator YOUNG. Will any private homes be built out of these funds?

Mr. GUERRERO. No, sir. These are all for public facilities, governmental facilities. The private homes will be financed through banks and agencies that provide for that kind of loan. Not one penny is for private homes. I will assure you of that.

Senator YOUNG. Thank you.

Mr. TAITANO. Senator, if I may further elaborate on that, the Navy does have its own reconstruction program which is only military. They have their own activities.

Senator YOUNG. This does not help the local people?

Mr. TAITANO. No, sir.

Senator BARTLETT. Mr. Chairman, may I ask a question or two?

Chairman HAYDEN. Yes.

Senator BARTLETT. Governor, you are asking for $11 million supplemental, and how much in the regular appropriation?

Mr. GUERRERO. $10 million, sir.

### AVERAGE INCOME OF GUAMANIANS

Senator BARTLETT. And what is the average income of the Guamanians?

Mr. GUERRERO. According to the 1960 census, family median income was about $3,500 per year, a family of 5.6 members.

Senator BARTLETT. Isn't that an extraordinarily high income for that part of the world?

Mr. GUERRERO. I don't think so.

Mr. WON PAT. For that part of the world, it is high.

Mr. GUERRERO. I think in Guam the income is not high.

Senator BARTLETT. I don't mean to imply that, but for that section of the world, isn't it quite high?

Mr. GUERRERO. Yes; if you probably compared it with the Trust Territories. Yes.

Senator BARTLETT. How about American Samoa?

Mr. GUERRERO. Yes, sir.

### PRIVATE INDUSTRY EMPLOYMENT

Senator BARTLETT. What industries do you have there to provide gainful employment for the people?

Mr. GUERRERO. We have none, sir.

Senator BARTLETT. How do they arrive at this income?

Mr. GUERRERO. We have what is called a service economy. We service the military bases there, providing supplies, labor, and other needs.

Senator BARTLETT. The economy is entirely dependent, at the moment, on U.S. Federal spending?

Mr. GUERRERO. Yes.

Senator BARTLETT. Would you say that the lot of the people there has improved in the last decade, for example?

Mr. GUERRERO. Yes, sir.

### EFFORTS TO PRIVATE INDUSTRY

Senator BARTLETT. Do you see any possibility or any prospect of establishing an industrial base of any kind?

Mr. GUERRERO. We are trying to develop a tourist community there. Some agricultural economy is established and we hope to try to invite industry to Guam, particularly on the basis that many of our American companies are operating on foreign bases, or foreign areas, and if they can pull back to an American territory where the system of government, the due process of law, is applicable, I think it will save them the headaches and the extra expenditures.

AGRICULTURAL PRODUCTION

Senator BARTLETT. What is your agricultural production now? What do you raise that is marketable?

Mr. GUERRERO. The regular truck farming, poultry, we have an egg cooperative. That is about all that we have, sir.

Senator BARTLETT. There is a ready market for this, is there not?

Mr. GUERRERO. The island consumption has not been met, up to now.

Senator BARTLETT. You import considerable quantities?

Mr. GUERRERO. We import more than we produce.

CENSUS OF GUAM

Senator BARTLETT. How many Guamanians are there?

Mr. GUERRERO. The census shows a population of 45,000 to 50,000. There are about 35,000 natives of Guam.

Senator BARTLETT. What percentage of them speak English?

Mr. GUERRERO. English has been the official language of Guam since 1900, sir, and I would say that about 90 percent speak it and understand it. They may not write it, but they speak and understand English.

Senator BARTLETT. Is the native language taught in the schools?

Mr. GUERRERO. No, sir.

PRESERVING CULTURE OF GUAM

Senator BARTLETT. Is it intended to discard the native language and customs?

Mr. GUERRERO. I think, sir, this is very much dependent on the population. At this time, the people of Guam think in terms of the American way of life. They assimilated it. Their education, their thinking, the way they want to eat, dress is all American. As far as preserving the culture of the old Guam, there is some attempt to do that, but I do not believe that it is intended, or it is the desire to spread it out to make it a part of Guam, from the standpoint that we should practice it.

Senator BARTLETT. I think that is very well expressed, Governor, very well, indeed. I, personally, would hate to see all the ancient customs, traditions, habits, language, discarded and forgotten.

Thank you very much.

Chairman HAYDEN. Do you want to ask a question, Senator?

Senator MANSFIELD. No questions, Mr. Chairman. Thank you.

Chairman HAYDEN. Thank you for your appearance.

LEGISLATURE OF GUAM

Mr. WON PAT. I would like to present a statement and be able to answer any questions you may ask. I would do that in accordance with the provisions of Public Law 88–170.

Chairman HAYDEN. This will be put in the record.

(The statement referred to follows:

STATEMENT OF ANTONIO B. WON PAT, SPEAKER, SEVENTH GUAM LEGISLATURE

Mr. Chairman and members of the subcommittee, I am Antonio B. Won Pat, speaker of the Seventh Guam Legislature. Our territorial legislature is a uni-

cameral body comprised of 21 members elected by the people of Guam and as the speaker of this legislature I am the highest elected official in our territorial government.

I have the pleasure of appearing before you today in support of requests for appropriations submitted under the authority of Public Law 88–170, November 4, 1963, the Guam rehabilitation bill. It was my privilege to appear in support of this legislation before both the Senate and House Committees on Interior and Insular Affairs in the previous session of Congress and I now consider it a privilege to appear before you to further support this legislation which is so vital to Guam and its people.

Resolution No. 292, Seventh Guam Legislature, 1964 (second) regular session, creates a select committee on federal legislation from the membership of that body for the purpose of appearing before the committees of Congress to present the views of the people of Guam in regard to the present requests for appropriations as well as other matters of importance to them. I am chairman of that select committee and my appearance before you today is pursuant to that resolution.

The "Guam rehabilitation bill" authorizes certain appropriations upon the request of the Governor of Guam with the "concurrence of the territorial legislature" and the approval of the Secretary of Interior. The Governor of Guam has submitted and testified in support of two appropriations covering educational facilities, public works, utilities, resources development, and village development projects. I will not labor you with further testimony as to these items.

It is, however, my pleasure to state to you that the programs contemplated by these appropriations have been carefully considered and have the full support of the Seventh Guam Legislature. Resolution No. 305, Seventh Guam Legislature, 1964 (second) regular session, officially expresses the requisite concurrence of the Guam Legislature and I offer a copy of this resolution as part of my testimony.

In concluding my testimony I wish to thank you for your consideration, both on behalf of myself and the people of Guam. We urge your early consideration and support of this much-needed assistance.

Thank you.

RESOLUTION NO. 305

SEVENTH GUAM LEGISLATURE

1964 (SECOND) REGULAR SESSION

Introduced by Committee on Rules

Relative to expressing the concurrence by the Guam Legislature in the appropriation requests to be made by the Governor of Guam to the U.S. Congress pursuant to the provisions of Public Law 170, 88th Congress

*Be it resolved by the legislature of the territory of Guam:*

Whereas section 2 of Public Law 170, 88th Congress, "an act to provide for the rehabilitation of Guam, and for other purposes," provides that before the funds authorized by said act may be appropriated, the Governor of Guam in requesting the same must have the concurrence of the territorial legislature; and

Whereas there have been submitted to the legislature the requests, pursuant to said act, that the Governor of Guam intends to make to Congress in the immediate future, said requests being set out in exhibits hereto attached and corporated herein by reference; and

Whereas the legislature has had the opportunity to examine such budget requests and has in fact participated in the preparation thereof, and finds that said requests are those that now should be made to the Congress: Now, therefore, be it

*Resolved*, That the Seventh Guam Legislature does hereby, on behalf of the people of Guam, concur with the requests for appropriations under Public Law 170, 88th Congress, to be made by the Governor of Guam, such requests being outlined in the exhibits annexed hereto, and does further authorize the spokesmen of the legislature, created by Resolution No. 292, who shall accompany the Governor of Guam to Washington to testify in support of said appropriation requests to present this resolution as evidence of the legislature's concurrence; and be it further

*Resolved*, That the speaker certify to and the legislative secretary attest the adoption hereof and that copy of the same be thereafter transmitted to the Governor of Guam.

*1965 regular Federal budget (Guam)*

| Facility | Total cost | OEP | Guam reconstruction law request |
|---|---|---|---|
| Education: | | | |
| College of Guam Library | $505,000 | 0 | $505,000 |
| Classroom | 435,000 | 0 | 435,000 |
| Total education | | | 940,000 |
| Village development: Sinajana (purchased old village) | 1,137,000 | 0 | 1,137,000 |
| Total village development | | | 1,137,000 |
| Public works: Sewer system: | | | |
| Central | 3,325,000 | 0 | 3,325,000 |
| Yona | 190,000 | 0 | 190,000 |
| Dededo | 380,000 | 0 | 380,000 |
| Total public works | | | 3,895,000 |
| Resources development: | | | |
| Air terminal | 850,000 | 0 | 850,000 |
| Commercial port plans | 100,000 | 0 | 100,000 |
| Total resources development | | | 950,000 |
| Utilities: Water: | | | |
| Line replacement | 1,078,000 | 0 | 1,078,000 |
| Tamuning | 140,000 | | |
| Agana Heights | 55,000 | | |
| Old Agat | 42,000 | | |
| Maina | 16,000 | | |
| Merizo | 148,800 | | |
| Umatac | 120,000 | | |
| Yona | 421,200 | | |
| Tank replacement: Inarajan | 135,000 | | |
| Power: contribution | 2,000,000 | 0 | 2,000,000 |
| Total utilities | | | 3,078,000 |
| Grand total | | | 10,000,000 |

*1964 supplemental Federal budget (Guam)*

| Facility | Total cost | OEP | Guam reconstruction law request |
|---|---|---|---|
| Education: | | | |
| George Washington High School | $3,675,000 | $1,933,000 | $1,742,000 |
| George Washington Junior High | 1,536,000 | 0 | 1,536,000 |
| Chalan Pago Elementary | 650,000 | 299,000 | 351,000 |
| Barrigada Elementary | 650,000 | 318,000 | 332,000 |
| Talofofo Elementary | 455,000 | 191,000 | 264,000 |
| Tumon Junior-Senior conversion | 225,000 | 0 | 225,000 |
| Tamuning-Dededo Junior High School | 1,536,000 | 0 | 1,536,000 |
| Agat-Santa Rita Elementary | 455,000 | 0 | 455,000 |
| Dededo Elementary | 650,000 | 406,000 | 244,000 |
| Merizo Elementary | 390,000 | 225,000 | 165,000 |
| Trade and technical school | 671,600 | 239,000 | 432,600 |
| Department education administration building | 249,000 | 193,000 | 56,000 |
| Total education | | | 7,338,600 |
| Public works: | | | |
| Public works buildings | 744,000 | 425,000 | 319,000 |
| Public utilities buildings | 233,600 | 32,000 | 201,600 |
| Procurement and supply warehouse | 637,000 | 74,000 | 563,000 |
| Penitentiary | 319,000 | 150,000 | 169,000 |
| Juvenile home | 196,200 | 75,000 | 121,200 |
| Sewer system plans | 220,000 | 0 | 220,000 |
| Central Yona, Dededo, Asan-Piti | | | |
| Total public works | | | 1,593,800 |
| Utilities: Water, Dededo wells and pumps | 290,200 | | 290,200 |
| Village development: | | | |
| Area: | | | |
| Yona | 877,340 | | 877,340 |
| New land acquisition | 119,600 | | |
| Development | 484,000 | | |
| Building land purchase | 240,500 | | |
| Building demolition | 33,600 | | |
| Sinajana | 864,000 | | 864,000 |
| New land acquisition | 264,000 | | |
| Development | 600,000 | | |
| Asan | 500,000 | | 500,000 |
| New land acquisition | 200,000 | | |
| Development | 300,000 | | |
| Total village development | | | 2,241,400 |
| Grand total | | | 11,464,000 |

COMPOSITION AND ELECTION

Senator BIBLE. Will you tell us about your legislative setup briefly? How many members do you have? How often are you in session?

Mr. WON PAT. The Guam Legislature is a creature of the U.S. Congress, enacted in 1950. It established a civil government with the traditional three branches of the American system of government. In the executive branch, the chief executive is the Governor of Guam, appointed by the President and confirmed by the U.S. Senate.

The legislature is elected at large. It is comprised of 21 members and the members, in turn, elect the speaker. The only part of the government that is responsive to the people of Guam.

Senator BIBLE. It is composed of how many people?

Mr. WON PAT. Twenty-one members, elected at large.

Senator BIBLE. Thank you. I just wanted that for the record, Mr. Chairman. I think it is helpful in understanding the Legislature of Guam. Thank you, Mr. Chairman.

### 1965 Budget Request for American Samoa

Chairman Hayden. Governor Lee, do you have a statement about American Samoa which you care to put in the record?

Mr. Lee. Yes, sir; I do have a statement and I will be glad to put it in the record. I can give you a brief summarization, or you can start asking questions.

Chairman Hayden. Just as you please.

(The statement referred to follows:)

### Statement of H. Rex Lee, Governor of American Samoa

Mr. Chairman and members of the committee, it is a pleasure for me to appear again before your committee and to explain Samoa's needs and problems. This committee has been very helpful and sympathetic in what we are trying to do in Samoa and in the not too distant future I hope that we will have the pleasure of a visit from members and staff of this committee. We enjoyed the visit from Senator Mansfield and Senator McGee a little over a year ago and they have been personally helpful to us.

Our large-scale development program which the Congress authorized a little over 2 years ago is well underway. We have made good progress since I appeared before you last year, although we have had many problems develop that we had not anticipated and we have certainly not completed as many things as we had hoped to by this time. Some of the delay in completing our public works projects was occasioned by the fact that we were able to enter into attractive agreements with three new industries. These agreements required us to turn over our entire public works compound to the industries and we had to build a new public works center. We did this with the money supplied by the industries. This slowed us down considerably on our public projects but we think it was worthwhile. Two of these industries are now operating and we hope the third will be operating very shortly. As a result of these new industries the total number of private jobs has more than doubled in the past year.

The costs of some of our projects are exceeding the costs we had projected when we originally proposed our program. At that time we had no past construction experience in Samoa on which to base our cost estimates. As a matter of policy we held our estimates to a minimum and in some instances they proved inadequate. Fortunately, some of our other costs have been down. We have made some operating savings and because of the stepped-up program and increase in private activity we have produced more local revenue than anticipated and I do not believe the total cost to the taxpayer is going to be substantially more than we had estimated. The thing that is causing us the most trouble is the lack of trained personnel to do the types of jobs that we are undertaking. We are now paying very dearly for our failure to educate the Samoan people over the past 60 years. Also our supply lines are long and if a mistake is made on one little order, it can delay us for months and cause additional expense. We have also found it very difficult to recruit good technical personnel for employment in Samoa. We have tried to hold the number of these stateside employees to the absolute minimum and in many instances have operated difficult and technical jobs with untrained natives. While this has cost us some efficiency, in most situations the overall cost has still been lower and the training value to the Samoan people has been great.

Things change so rapidly in our progress that some of the things that we told the House last month are no longer valid today. I would like to review briefly the status of the majority of the programs that are underway.

#### ROADS

Our road program is moving more slowly and is costing more money than we had hoped last year in our estimates but not more than our original estimates. Of the $500,000 appropriated in fiscal 1964 we had hoped to complete the main road from one end of the island to the other for $100,000 leaving $400,000 for access and secondary roads. It is taking the entire amount to complete the main road and we are requesting $500,000 for secondary roads in this estimate.

#### SCHOOLS

Our big problem moneywise is with our school program. With the $1,581,150 you authorized in fiscal 1963 we are consolidating 43 village schools, most of which

are simple grass thatch or lean-to types of structures, into 26 modern elementary schools that are especially designed for educational television. These elementary schools will act as community centers for adult educational television instruction after normal school hours. They will become the community centers for all types of activity. Our design for these schools is a good one but our costs on the first one, which we are just completing, are too high.

On the basis of the information we had when we had our House hearing, we advised the House that these costs were running 25 percent above estimates; but upon my return to American Samoa I found that the first or pilot school ran almost 100 percent over our estimate. One of the factors that our design engineers that we hired did not give enough consideration to was the isolation factor of some of the sites and the difficulties of getting materials ashore in areas that are inaccessible by road. Also the original estimates were completely unrealistic. We had budgeted at a rate of approximately $6 per square foot which is too-low for any area. We also had to increase the number of schools to 26 instead of 20 in order to put them all within walking distance. We had also hoped to use gratuity labor for all building. This has proved unrealistic as we need at least a skeleton crew of trained workmen on each project. If we were to use this first school as a true measure of future costs it would cost another $1½ million over the amount presently appropriated to complete the entire elementary school system. However, in analyzing the pilot project we have figured out a number of ways of saving money and feel that the additional cost can be cut substantially below this amount, although the exact amount is difficult to estimate at this time.

Our educational television studio is progressing on schedule and will be completed for the amount we now have available. However, on our air conditioning contract for the studio, the low bid was $69,800 or $9,800 more than we have available. On the advice of our engineers we cut some of the units out and accepted the low bid with the option to add the units back in within 90 days' time without any penalty. Last week we were advised by our engineer-adviser from the States, who visited the project, that the elimination of the additional units would jeopardize the equipment in case of a partial breakdown and he strongly recommended that I exercise the option. I did exercise the option on the last day, even though it meant taking the money from our overall educational fund.

The educational television equipment which was proposed 2 years ago in our overall program was put out to bid in various parcels that would insure the best price. Four major electronics producers were the successful low bidders. As these low bids were higher than the estimates we had submitted, we bought four, instead of six, television tape recorders. The remainder of the equipment was absolutely essential and we accepted the low bid even though the total was $28,394 over the amount budgeted. Here again, we had to commit funds from other parts of our educational budget to cover this deficiency.

Our greatest difficulty has been trying to get access to the high mountain on which we are to place our transmitter building and towers. We had originally budgeted $100,000 to build a road to the top of this mountain, but after building part of it we found that timewise and moneywise it was not feasible because of unforeseen water and rock conditions. We explored doing the job by helicopter but gave it up because of the danger involved. We then reprogramed it for an aerial tramway and contracted for the milling of the special cable and erection installation. We agreed to construct the terminal anchorages and a work cable to the top of the mountain for the transport of prefabricated construction materials for the transmitter building and for building the permanent tramway. This work cable and the transmitter building on top the peak have proved to be difficult undertakings and even with the assistance of two Navy riggers this access along with mountaintop site preparation plus additional costs for the transmitter building are exceeding estimated costs by $84,000. We have done everything possible to cut these costs, including the redesign of the transmitter building, but the initial cost estimates, both on the transmitter building and the access, were totally inadequate in light of the construction difficulties that have arisen.

We have carefully studied our junior high and high school needs in relation to educational television and have decided that an 8-year elementary system plus a 4-year high school system would be the most flexible and economical type system for Samoa. Consequently, we are putting the money that had been programed for junior and senior high schools, including the technical high school buildings, into two new high schools in Leone and Manu'a. The amount of money we have will be a bare minimum but it will get our program started

and will relieve the congestion in the existing high school. We are receiving assistance in the planning of these new facilities from the School Facilities Planning Laboratory of Stanford University. This group has committed $20,000 for this purpose and they are furnishing their time for the planning work on a gratuitous basis while working with the architect selected for the design portion which is now underway. We hope to have the Leone facility available for the 1964–65 school year.

AIRPORT

We are just completing our work on the airport. While the jet strip has been opened and in use by commercial airlines for slightly over a year we have been completing our work on the terminal, the shoulders, the seawall, the turnoff, the service buildings, and other auxiliaries that go to make an airport functional. In the original estimates no provision was made for service buildings, firehouse or supply buildings. We have been able to build them with the airport funds available. Fortunately, we have an excess of $104,500 in this fund, which can be reprogramed into other activities.

ELECTRIFICATION

Our two new 2,000-kilowatt generators are being installed at the present time and powerlines are being extended to the outlying villages. Most of the transmission lines on the main island will be in by the end of this calendar year. Public works has already received more than 350 requests and more are coming in daily for the wiring of the villagers' houses. This will be done on a reimbursable basis during fiscal year 1965. You will note in our new budget that we have requested $823,000 for a new 3,000-kilowatt unit which will include building expansion and auxiliaries. This additional unit is necessary in order to keep up with the very great expansion which we have with the new cannery and the prospect of a new hotel along with providing a minimum reserve capacity for future expansion. Since this estimate was submitted we have again reviewed our costs with our consulting engineer and feel that this item can be reduced $50,000 and this amount diverted to our deficiencies in the school and television programs.

WATER DEVELOPMENT

An engineering firm from Hawaii has completed a detailed design for the first stage of our water program and construction is just starting on these facilities. By July of this year when the dry season starts some of these new facilities should be in operation and will help alleviate the water shortage problem that we have had the last few years with our fish canneries. The first phase of this program will cost $1 million which was approved in our fiscal 1964 budget. We are requesting $240,000 in the fiscal year 1965 budget to continue this program. The total estimated cost of an integrated water program to provide for approximately an 8-day water supply for the islands is $2,500,000. It is planned to request money for this only as the development requires it. One of our big problems at the present time is that the water system which was installed during and before the war by the U.S. Marines has deteriorated to the point that we are having to spend a great deal of money for the replacement of the various distribution systems throughout the island. This will be accomplished to a major extent by the integrated program and to a lesser extent by funds approved in prior years for small unrelated water projects. Over the past several years we have had appropriations totaling $342,000. We have delayed construction of some of these items until we could fit them into the overall integrated program that was being engineered. Some of these funds will be used for replacement of water pipe and the remainder will be integrated into the overall development program.

SEWER AND SANITARY DEVELOPMENT

In fiscal year 1964 Congress granted $1,500,000 of a $2,100,000 program to start the sewer system in the bay area and to provide materials for the systems in the villages. The sewer system for the bay area is now in the design stage and it is anticipated that construction will start late this spring. We would like to commence construction in some of the villages throughout the islands during fiscal year 1965 and are requesting $284,000 to start that program.

TELEPHONE SYSTEM

We are requesting $254,000 to complete the telephone system on Tutuila Island. The new exchange building is about completed and it will house a 25-line, 50-connector automatic telephone exchange with interoffice trunking equipment.

MARINE RAILWAY

We are somewhat embarrassed about our ship repair facility program. In our supplementary budget request for fiscal year 1962, we requested $55,000 to repair the marine railway which had been improperly designed when it was first built. You granted the funds for this repair work but unfortunately the activity of this plant increased so that we have never been able to shut it down and accomplish the necessary repairs. By the end of this year we anticipate that the traffic for the marine railway will be more than triple what it was 2 years ago because of the operation of the new fish cannery and the almost double capacity of the old cannery.

The fishing fleets supplying the canneries will have increased from 40 to 130 boats in 1965. You may likewise recall that we next came to you with a reprograming request last year to repair and tow to Samoa a floating drydock which would be used to supplement the existing marine railway. We found that the original reprograming request of $70,000 was inadequate and came back for an additional reprograming request of $53,000 which you approved. However, after personally inspecting and reviewing the proposed floating drydock at Pearl Harbor, we had a new feasibility study made of this proposed move to Samoa and concluded that the proposed dock was too large and would be too expensive to operate. Furthermore, it was determined that the actual cost of building a second marine railway would be less than our anticipated expenditures over a period of time to transfer the floating drydock from Pearl Harbor and operate it in American Samoa.

The total cost of the new marine railway is estimated at $330,000 plus $5,000 in additional equipment. Subtracting the $123,000 which was reprogramed we are requesting $212,000 for this activity. As soon as we complete the new facility we will be able to close down and repair the old one and thus have two railways that will be economically self-sufficient and produce some income.

HOUSING

During the past 2 years you approved a total of 88 houses to be built by the government of American Samoa in connection with its medical, educational, and other programs. These houses were originally estimated at a totally inadequate $11,000 per house but you permitted us last year to reprogram some of our savings to an extent of $2,000. While the houses in the airport area that are easily accessible will be completed for very little above our estimate, it appears that because of the access problem in the case of about 38 of the houses, the total cost of these 88 houses will require an additional $114,400 or an additional 10 percent. While we hate to run this much over, we feel that our houses are being built at a very economical sum. This will make our houses cost an average of $17,500 complete, which we think will certainly compare favorably with any U.S. housing that is being built anywhere in the Pacific, in spite of our isolation factor. Recently the Federal Aviation Agency advertised 17 houses for bid at varied design. The lowest bid on the 3-bedroom house of our design was $29,000 for the basic house and $38,000 for the complete unit, which is far above our costs. The FAA has asked us to build its houses, which we will do. While we had agreed to build them at cost, the agency had to have a fixed price and so we quoted them a price of $23,000 per house, well above our current cost. This profit will be available for reprograming.

HOSPITAL AND MEDICAL FACILITIES

We are unhappy to report to you that we have not yet found a final solution to our hospital problem. When we requested $3 million last year, which you granted, we advised you that we had several architectural estimates ranging from $6 to $7 million but that we felt we should be able to construct it for a maximum of $3 million exclusive of equipment. Since that time we have had another engineering concern review the project and they have given us a preliminary estimate of $4,500,000. One of the problems seems to be that each of these firms feels that the hospital has to be built by a stateside contractor and to stateside design. We

feel that we can build this hospital by force account and on island design at substantially less. Unless this committee objects, we are now going to go ahead and get a final design and try to build the hospital for the $3 million that has been appropriated. However, we want you to know before we start, there is the possibility of our not completing it for this amount of money. We are also reviewing the possibility of cutting down the number of beds.

Normally, we would prefer to complete all of these projects by putting them out to bid and have reputable contracting firms step in and take the complete responsibility. We have not been able to do this primarily because of cost and furthermore, we believe that by doing these projects by force account there has been a great advantage in training literally hundreds of Samoans in various trades and crafts. Our whole building program is a constant training process. As our natives become trained, we lose many to private industry. We believe this is good even though it slows down our construction progress and in some instances, increases cost. On the basis of the jobs that we have completed, we believe our construction is costing less than if we had contracted and at the same time we are getting extra training benefits. As we complete our development program we hope that many of the people we have trained will go into small building businesses so that much of the future building can be done by small Samoan construction firms.

TOURISM AND ECONOMIC DEVELOPMENT

As we have indicated previously, tourism is one of the big hopes for economic development in the area. We advised you a year ago that we were trying to assist the Samoan people in building a large luxury hotel themselves and to put many of the Samoans in the small businesses that are attached to tourism. We had hoped a year ago that by now we would have such a hotel near completion. The financing has been much more difficult than anticipated. However, it is now completed and we are starting the construction. The American Samoan Development Corp., which consists of all Samoans, has approximately 1,200 stockholders and has raised approximately $250,000 in cash. The corporation is borrowing the remainder from the Bank of Hawaii, the Bank of American Samoa, and the Area Redevelopment Administration. The total cost of this project is estimated at $1,555,300. After having four top hotel experts in the Pacific inspect American Samoa, they all recommended the Goat Island site which is owned by the Government as the logical place to build our principal hotel. There is not enough land there, however, and we are proposing to reclaim several acres at this site with part of the land reclamation funds you granted us last year. The cost of this land reclamation should be returned to the Government by increased rentals from the hotel corporation over a 20-year period. Once the hotel is completed, a series of small businesses should be profitable in Samoa, such as gift shops, beauty shops, flower shops, sport fishing, and land-transportation companies. We are doing our best to reserve these small business opportunities for native Samoans. All of the other island areas are watching this development to see whether the benefits will accrue to the native Samoans or whether they are going to be taken over by people from the mainland. We have been severely criticized by people wanting to come in from the outside to exploit these many opportunities, but feel it is extremely important to develop Samoa for the Samoans if they are to become self-supporting and if the proper image of the United States is to be maintained in the Pacific.

OPERATING BUDGET

The operation and maintenance program submitted herein reflects an increase of $421,811 in the net operating costs of government. Personnel compensation increases $355,071 attributed primarily to the ETV schedule of a full year's operation as compared to a 6-month budget in fiscal 1964. Increases are programed in stateside teachers, an assistant attorney general, and an income tax supervisor with reductions scheduled in doctors and nurses due to delayed time phasing in the new hospital construction. The increase in Samoan positions is generally in the ETV program to provide training for the Samoans in this medium to allow for eventual replacement of the statesider positions; the school-lunch program; the maintenance and repair, and land and survey divisions of public works; all due to needed expansion of the programs and in providing required reimbursable services along with preventative maintenance of increased plant.

Supplies and materials will increase an aggregate of $500,589. The following are the material variances: the operation of the newly acquired *Hugh M. Smith* and the *YF–340* along with the harbor tugs will cost an increased $103,694; the

school-lunch program now being extended to approximately 7,000 students will increase $82,142; public works materials required for reimbursable services and marginal maintenance increases $87,133 while the production farm requires more feed, chicks, and fertilizer and the entomology division additional chemicals totaling $41,795. The requirement for construction equipment is for replacement of items uneconomical to repair, ranging in age from 10 to 20 years old. Revenues are increasing $616,000 generally in every major category. We propose to eliminate the 4 cents per gallon aviation fuel tax, from which we are currently realizing approximately $42,000 annually in revenues, offsetting this reduction with anticipated profits from the liquor control fund which was established by the last legislature. It is necessary to promote the use of our new airport and terminal facilities and to do this the reduction in this fuel tax will place American Samoa on a competitive basis with other aeronautical facilities in the South Pacific.

We have continually had to reprogram funds or to delay or change projects. In some instances we have underestimated our costs. In several projects like our schools and television project it appears that our actual costs will exceed substantially the amount budgeted. While this is irritating it is not surprising. We had to move quickly on these projects and we did not have exhaustive engineering or cost data. There had been no contracts in the area or nearby areas and the labor and other cost factors were completely unknown. Even with the building experience we have gained in the past 2 years our cost estimates are difficult because we have had problems properly allocating costs between projects due to lack of trained accounting personnel. We now have what we consider to be reasonable estimates but because of our experience over the past 2 years, we are somewhat reluctant to say they are final. All we can say is that we will do everything possible to hold costs down and to build at as reasonable a rate as we can.

Based on these estimates it will take these additional funds to complete the major programs that you have authorized.

| | |
|---|---|
| Housing | $114,400 |
| Educational television transmitter building with access tramway and additional equipment costs | 122,194 |
| Elementary schools | |

At the present rate of expenditures, additional costs could be as much as $1,500,000.

We are convinced that we can cut these costs substantially but whether we can cut this additional amount to, say, 50 to 75 percent cannot be ascertained at this time.

We have $1,150,000 unprogramed from last year's operation, which was built up largely from delays in getting our full educational program going in time; in health because of our inability to reach agreement on the hospital standards and to recruit additional doctors; and, increased local revenues because of expanded economic activity on the island. These funds are available to meet the unanticipated costs of these various projects. We have not moved any funds from this major category without first coming back to the Congress for reprograming approval. It would be helpful if you could give us general authorization to proceed in using these funds to meet the overruns as indicated. In this way we would complete each major project as rapidly and economically as possible with maximum flexibility in ordering materials and scheduling our work. If, of course, there were any overall savings we would reprogram them back through the Congress.

In order of priority we would complete our education television system and our housing and then we would schedule the remainder of approximately $1,100,000 to complete all of the elementary school consolidations and possibly some additional high school classrooms. If we can have the flexibility so that we can move these funds between these projects, we believe that we can physically complete most of them within the fiscal year, without having to come back and ask for any additional funds from the Congress.

### Problems and Progress in Samoa

Mr. Lee. Mr. Chairman, I have, at my right, Mr. Screen, our Director of Administrative Services. It is nice to be back with you gentlemen, again, and I will tell you briefly some of our problems

and progress in Samoa. Congress has been very good to Samoa in terms of appropriations in the past 2 or 3 years.

We have, I think, a very good development program going there and have made a lot of progress in the past couple of years. I think Samoa has rapidly advanced from a place that was more or less pitied to an area that people are looking at with a certain amount of pride. We have cleaned the area up. We are putting in a very good educational system. We are improving our public facilities. But, more important, we are providing some economic opportunities to Samoans. We were successful in the contracts with three new industries.

ECONOMIC OPPORTUNITIES

We have more than doubled the private payroll in the last year and a half. We are in the process, at the present time, of launching a new tourist industry which will be controlled by the Samoans themselves. They are building their own hotel and we are trying to put the Samoans into the small businesses that go with the tourist industry.

We are reserving those opportunities for the Samoans. This is extremely important to the image of the United States in the Pacific. The other islanders are watching us to see whether all of this development which is going on is going to be to the advantage of the Samoans, or whether people from the States and other areas simply come in and use up all of the opportunities and leave the Samoans the ditchdiggers and busboys and so on.

CONSTRUCTION

The Samoan people are excited about this and I think the other island people are excited about it. It is moving along. We have some problem areas. Some of our construction is not moving quite as fast as we thought it would. We are now paying a price for not having educated these people over the 50 or 60 some odd years we have had it in the past. We are having difficulties in training, because of this lack of education.

The thing is, I think, moving as good as could be expected under the circumstances. We have deficiencies in some of the major projects that we have had approved and that we had hoped to complete. These deficiencies, however, are offset by savings in other areas.

I do not think the total requirement for Government funds is going to be any greater than we had anticipated, although it is going to require some flexibility and shifting of funds. We made some savings in operating expenses last year which we would like you to consider in reprograming.

By and large, I think the thing is in as good a condition as we can expect.

ESTIMATED GRANTS

Chairman HAYDEN. For grants to American Samoa, you estimate that $7,748,811 will be required. Of this amount $2,773,785 are needed for the department of education. How much of this latter amount is for continuing work on your educational television system? And how far along has the system developed?

EDUCATIONAL TELEVISION SYSTEM

Mr. LEE. Of that amount $610,000 is for the educational television system which is moving along very well. We have about completed our studio. We are having difficulties on our transmitters. We are putting these up on top of one of the high peaks overlooking Pago Harbor. We are having a serious problem in getting transmitters and the building on top of this mountain.

Chairman HAYDEN. When do you expect to have it in full use?

Mr. LEE. We think we will have the system in full use by July, Senator.

STATUS OF NEW MEDICAL FACILITY

Chairman HAYDEN. Last year, explanation was made to the committee of a need for a new medical facility. At that time a satisfactory architectural firm had not yet been engaged. What is the status of this facility at this time?

Mr. LEE. Senator, we still have not agreed on a satisfactory architectural design. You will recall that we asked for $3 million. The architects had said that it would cost us $6 million or $6½ million at a minimum. I told you I thought we could do it for $3 million and that we wouldn't start construction until we were reasonably sure that we could or that we would come back.

A new group has looked at it and given a cost of $4½ million. We are now working with some consultants and some architects to see if we can cut it down. I think we can still build it at $3 million. Before starting it, I wanted to come back and tell you that we are still having problems. I think the design engineers are still talking of standards that you would have in San Francisco or some mainland area.

Chairman HAYDEN. Have you been able to employ a satisfactory and competent medical officer to take charge of the hospital?

Mr. LEE. We have. We have had a great deal of difficulty on it, but I think at the present time we have a very competent staff. You granted us some raises for medical personnel last time and we have been successful in getting a good number of medical personnel.

ALL-SAMOAN DEVELOPMENT CORP. HOTEL

Chairman HAYDEN. Also, last year, reference was made to an All-Samoan Development Corp. to build a hotel and develop other business opportunities for the natives of Samoa. What is the status of the hotel plans?

Mr. LEE. The status of that is that we have 1,200 native stockholders. They have saved, from payrolls and other things, a quarter of a million dollars, which they have put into this corporation.

We have just completed arrangements with the Bank of Hawaii for a $250,000 loan, with ARA for approximately $1 million, with the Bank of Samoa for about $61,000. We were completing plans in Samoa last week, and we will start building very shortly. This will be a hotel that will be completely Samoan owned.

LEASED TO INTERCONTINENTAL HOTEL CORP.

It will be leased out for management to Intercontinental Hotel Corp. of New York for at least a 10-year period, until the Samoans gain the necessary experience.

Chairman HAYDEN. What is the volume of your tourist trade?

Mr. LEE. Senator, we have continued problem on this. We have no place to put them. We have many who want to come, but we can't let them in, because we don't have the beds for them. We think they will be able to fill the hotel, as soon as it is built. I think our problem will then be one of expansion.

PURCHASE OF BOATS

Chairman HAYDEN. During the past year Congress has approved use of $150,000 to permit purchase of two boats necessary to the administration of Samoa. Have you been able to secure boats which will serve your purpose?

Mr. LEE. Senator, we have continued problems on this. You people granted $220,000. The House approved $150,000. We spent about 5 or 6 months scouting this country trying to find somebody that would build a large boat for this amount. We could not find a builder.

Finally, I went to Hong Kong and found a firm that would build the boats there. But after finding this builder, on my return to Samoa, I found two things had happened. The Coast Guard had agreed to tentatively put a station in Samoa. So, we held up on the purchase of the big boat, pending a final decision by the Coast Guard on this.

COAST GUARD STATION

The Coast Guard has very recently told us they would go on this as of July 1. If they do this, our need for one big boat is out. We will, then, purchase the small boat we need for inter-island activity and I think we will be in fair shape. At the same time we had located this big boat in Hong Kong, it would have taken about a year to build, we also had the Fish and Wildlife Service declare surplus one of their old boats in order to cover us for this interim period.

We took the boat and it is now in Samoa and it is serving our needs. It is too expensive to operate; as soon as the Coast Guard comes in, we will dispose of the boat.

Chairman HAYDEN. Some of my inquiries have been directed to particular portions of your construction program. However, I believe that it might be well for you to sum up your construction plans for the coming year.

CONSTRUCTION PLANS FOR 1965

Mr. LEE. For the coming year, we will simply continue our major activities that you have approved, our road program, our schools, including the consolidation of all of these native-type houses into modern consolidated schools in 26 sites, the completion of our educational television system.

We have just completed our airport compound. We are putting in an additional service building. I am happy to say that we are going to have a surplus of money in the airport construction fund. Our airport is going to be dedicated in April. It is a good airport. We are increasing the traffic there.

We are hoping it will be a crossroads, once we get our hotel built, to bring in a great deal of industry to Samoa. Our electrification industry is growing. With these new programs we will use up our present supply and we are asking for an additional 3,000-kilowatt unit in this budget.

WATER DEVELOPMENT PROGRAM

Our water development program is now under construction. The sewer and sanitation system is being designed and we expect the designs to be completed soon and we will move ahead. The telephone exchange is completed and we are asking an additional $254,000 to complete that system throughout the islands.

One area that we are in difficulty about is our marine railway. We have increased the number of fishing boats based at Pago Pago from 40 to what we expect by the end of this year to be 130. We have an old marine railway built a number of years ago that broke down very shortly after it was built.

DRYDOCKS

It has only partial capacity. You people granted us $55,000 to repair it; however, we have never been able to close the yard down long enough to repair it. We are working several shifts, long hours, and we are doing an inadequate job. We came back with a request to purchase a surplus drydock from Pearl Harbor.

You granted this money. But after further exploration, we thought it would be a white elephant. So, we are proposing in this budget this amount, plus a new amount to build a new drydock. When we build that, we will close down the old one long enough to repair it, and then we will have two drydocks.

HOUSING PROGRAM

It is very important for us to maintain good service, otherwise we lose our fishing business. Our housing program is progressing on schedule. It is going to run a little more than we had anticipated on costs, but the costs are substantially lower than any contractor has been willing to contract for, either FAA or other agencies.

Chairman HAYDEN. Senator Mansfield, do you have a question?

RECOGNITION FOR SAMOAN ABILITIES AND CONTRIBUTIONS

Senator MANSFIELD. Governor, I had the opportunity to read your statement, before you came in and to listen to the Director of the Office of Territories, and the Governor of Guam, and the others that appeared. I was very much impressed with what you have to say beginning at the bottom of page 12, under the title, "Tourism and Economic Development," and ending at the bottom of page 13.

You spent some time there covering the building of the hotel which you have been discussing with this committee, and some congressional groups, personally, over the past several years. It appears that there are times when you have been criticized by people who wanted to come in and exploit the opportunities which this hotel may offer in the way of ships, businesses, and the like.

I only want to express the personal hope, that I am pretty sure is widespread, that your policy to maintain Samoa for the Samoars is

not lessened in any degree, but, if anything, is strengthened, and that these people who are doing so much on the basis of their only abilities and contributing so much on the basis of their own savings toward the building of this hotel, roads, and things of that sort, should be given the recognition which is their due.

### Reviving Samoan Culture and Tradition

I would hope, also, that your policy of continuing to revive the old Samoan culture and traditions, and to keep it alive, and to bring back some of these people who have gone to the mainland to reinvigorate the spirit will continue. Now I am sure that that will be your policy and I am sure that would be the policy which the Congress would want to see continued and enforced, because the Samoans have quite a lot in the way of consideration.

Their culture is different from ours. To lose it and become Americanized, so to speak—and I hope what this committee has stated on occasions, and congressional committees have said in their reports would receive very serious consideration, as it has up to this time.

### School Teachers in Samoa

What is the teacher situation in Samoa? Are you doing anything to see that Samoan students are sent to Hawaii, the mainland, so that they can become qualified to teach the children in the schools of Samoa so that you will not have to depend upon American teachers from the United States to take up the slack?

### Preserving Business Opportunities for Samoans

Mr. Lee. Yes, sir. First, Senator Mansfield, I would like to comment on your statement about our policy down there. I want to assure you and this committee that our policy is to reserve the business opportunities for the Samoans. I think this is extremely important from the standpoint of the American image in the Pacific.

These other islanders are watching very closely to see whether under these developments the Samoan people are going to benefit, or lose out and become ditchdiggers and busboys and others take the profits. The other islanders are excited about this hotel angle.

They are excited about the fact that 1,200 barefooted Samoans, so to speak, would be able to form the corporation and own this hotel.

### American Samoan Policy Creates Good Relations in Pacific

Senator Mansfield. This is an all-Samoan corporation?

Mr. Lee. It is an all-Samoan corporation, strictly. I said they have saved up $250,000 to start this out and it is something that the other islanders are looking at. They are coming up and exploring it and looking at it with great favor. I think it is doing our relations in the Pacific a great deal of good. And I want to assure you this is our policy. In addition to doing this, though, reserving these opportunities and helping them preserve their culture, we are trying to give them a good American education, the equivalent of Hawaii or the mainland so these people can have an opportunity to exploit their own resources and hold their own in this world so we won't have to continue to subsidize them.

SCHOLARSHIP AND TRAINING

On the teaching situation, we have four or five teachers now with mainland training. We have approximately 100 Samoans that are off on scholarships throughout the United States, that are scattered throughout the United States. As rapidly as they get degrees, we are bringing them back.

I would like to point out to you in this budget that we have made provision for a Samoan to be in every position with a statesider on the operation of this educational TV. We have a TV engineer. We have given him a Samoan assistant, a trainee, that will learn the job in the hopes by the time the 2- or 3-year contract for the technician is up the Samoan will be able to step into his job and take over and thus greatly reduce the cost of operating this system.

ON-THE-JOB TRAINING PROGRAM

We are running, all the way through, a vast training program, on construction, on education, and everything else. It is an on-the-job training program.

Senator MANSFIELD. Governor, I am delighted to hear that. Of course, as I think I have indicated to you, we have a Samoan girl, a student in eastern Montana by the name of Alauni S. Tauto'o, who is doing an excellent job there and has as her objective the return to help her people and to participate in the education of the folks in the area from which she has come. We like Alauni a lot in Montana. We would sort of like to keep here there but she feels she ought to go home and she is right.

But I am glad to note that your dependence on mainland teachers is decreasing and that you are bringing, as they qualify, more and more Samoans into the teaching profession in Samoa, itself.

SCHOOLING FOR ALL CHILDREN

And I would assume that, as far as education is concerned, one of your prime objectives is to see to it that every Samoan child is given as much of an education as possible under your administration.

Mr. LEE. That is right. Last year, for the first time ever, all Samoan children were able to go to school. We had been turning down two-thirds of our potential high school children because we didn't have the place for them. We are now taking them in and providing as good an education as mainland United States.

STRONG EDUCATION SYSTEM

This matter of stateside teachers is something we will cut down as rapidly as we can. We will begin to get back our children on scholarships like the young lady you mentioned. This will cut down our expenses because we will not have the expense of bringing them to Samoa and housing them and returning them.

And I think that, all in all, we can look forward to a very strong educational system.

This educational TV is, I think, going to be very good and very exciting, and eventually less expensive, although the initial expense is very great.

FLEXIBILITY IN FUND ADMINISTRATION

Senator MANSFIELD. Mr. Chairman, I have one more question.

Governor, in the administration of the funds which have been allocated to you, I suppose there are times when you find that its costs a little more to do a job than anticipated and on the other occasions it costs a little less. And, do you have the proper flexibility—and I want you to answer this question candidly—in the use of these funds so that you can get the maximum benefit in the administration of the various projects needed to carry on the affairs of that program?

Mr. LEE. Senator, the Congress has been very good to us in terms of funds. You have granted us everything I think that we need. We have had difficulty in programing various items because our estimates were not good estimates. Some,, as you will see from our statement, were grossly inadequate. Some were on the generous side. We are not able to program within the amount of funds available.

MORE FUNDS REQUIRED

And I have suggested this in the statement, and I think we will be probably sending you more on this shortly. We do need more flexibility to move between projects. Our housing is costing more and airport costing less. Other items vary. We have made savings on overall administration. Our schools were grossly underestimated. We are going to have to have more funds in that. We require the funds but it will require some programing and flexibility.

Senator MANSFIELD. I am sure the committee will give you that consideration.

I want to say that we are fortunate to have a man with your outlook, Governor, looking after the affairs of the Samoans. I think the record will bear out that statement in some detail.

I am only sorry, Mr. Chairman, that because I have to go to another meeting that I won't be able to be here to listen to the testimony of Mr. Goding, the High Commissioner of the Trust Territory and Mr. Akimoto, because I am interested there, but I am sure that Senator Bartlett and Senator Young and the other members of the committee will take care of that.

Excuse me.

Chairman HAYDEN. Any questions?

Senator YOUNG. Yes; two or three.

HOSPITAL FACILITIES

What do you have for hospital facilities on the island now?

Mr. LEE. Senator, at the present time, we have an old marine hospital, a temporary structure built in World War II. It is plenty large enough; however, it is a frame structure that has deteriorated, bug infested, and our worst problem is that it is a firetrap. We are trying to replace this with a modern structure that will be resistant to these and we are having difficulties.

As I have said, we have had at least three different architects look at this and have had estimates running from $9 million down to $4½ million. I think they are too high. I think they are trying to build the type of hospital that is not necessary in the tropics and in this

particular area. We are trying to get it down and I think we are going to.

Senator YOUNG. Wasn't there a Baptist Hospital there a few years ago, a hospital operated by the Baptists?

Mr. LEE. No, sir; not that I know of. We have only one medical facility on the island and that is operated by the Government of American Samoa.

Senator YOUNG. What flights do you have in there?

AIRPLANE AND BOAT TRANSPORTATION

Mr. LEE. At the present time, a weekly jet flight by Pan American from Honolulu to Sidney. We are the halfway point. They run three flights, one through Samoa, two through Fiji. We are in hopes that when we have the hotel they will have other flights through Pago Pago and we will have more services.

Within the past few weeks, the French have canceled Teal flights to Tahiti. They are only going to run into Pago Pago so this will cut us off from our cross flights to Papeete. We will hope that Pan Am will fill us in on that flight so we will get cross flights as well as north and south.

Senator YOUNG. Mr. Chairman, I visited Samoa some years ago and the only way to get in there was by boat from British Samoa. I got sicker than a dog. I thought I would have to stay there until they got the airport.

Mr. LEE. You are now 4 hours and 45 minutes out of Honolulu on a nonstop jet. We would like to have you come down and see our development program.

Senator YOUNG. I think this was an 8-hour trip from British Samoa at the time.

Mr. LEE. And that is a very rough trip, and even sailors get sick.

RESERVING BUSINESS OPPORTUNITIES FOR SAMOANS

Senator YOUNG. You have made a lot of progress since I was there. There was practically no opportunity for local people.

Mr. LEE. We are making progress but we are trying to reserve a lot of these small business opportunities for Samoans. The minute we started improving our public facilities and got air transportation, we had a lot of people wanting to build hotdog stands and bowling alleys. The Samoan people want to develop these opportunities themselves and I think it is extremely important from the standpoint of our image in the rest of the Pacific to let them do this. Otherwise, development doesn't mean anything to the native people. They are simply onlookers. This way they are participating.

AGRICULTURE DEVELOPMENT

Senator YOUNG. Governor, what do you do in agriculture? Do you have an experimental station?

Mr. LEE. We have a small experimental farm. It is more of a demonstration farm. We are increasing our request, if you will note, for agricultural work. It is mostly a subsistence type of agriculture. We do not have large land areas that can be developed. We are simply trying to improve their particular needs in their village. Cer-

tainly every family has a few banana trees, a few taro plants, a few coconut trees, a few papayas and things of this kind. We are trying to improve that, get them some brood stock or chickens and pigs and supplement their existence.

### Use of Surplus Food

Senator Young. Do they use any of our surplus food there?

Mr. Lee. Last year, for the first time, we brought surplus foods there. We are initiating a school lunch program in the schools because we had some malnutrition amongst the youngsters. We have had a sort of feast and famine. The people live from the sea, get most of their protein from the sea. When there is good weather, there is lots of fish, but when it is poor weather, nothing.

We have had some malnutrition so we have started a school lunch program.

Senator Young. Thank you very much.

Senator Bible. I simply want to join the commendation of Rex Lee, and I know he is doing a good job on American Samoa.

### Census of American Samoa

I would like to ask him just what the population of American Samoa is, natives.

Mr. Lee. 21,000.

Senator Bible. How many American do we have from stateside?

Mr. Lee. Stateside, we have about 300 at the present time.

Senator Bible. How many do you have in the school system based on that population of 21,000?

Mr. Lee. The total school population is approximately—were you asking total American school population?

Senator Bible. Overall school population.

Mr. Lee. About 6,800.

Senator Bible. That is what, first grade through——

Mr. Lee. First through twelfth; yes. We have several parochial schools, in addition to that.

### Adequacy of School Facilities

Senator Bible. How close are the school facilities to being adequate at the present time? I notice in your statement that you give high priority to completing all elementary school consolidations and possibly some addition of high school classrooms at an estimated cost, if I read this correctly, of $1,100,000.

Mr. Lee. At the present time, the school facilities are completely inadequate. We have a good share of the children sitting on the floor. This isn't too bad in itself. But the shelter is poor and we are trying to consolidate some 43 village schools into some consolidated schools with a modern building that is designed for educational TV. Our plan, as you know, is to do direct TV teaching into these schools and have the Samoan teacher monitor and maintain order and to be educated along with the children. We will cut down at that time the number of mainland people that we have. We will have a very few outstanding mainland teachers teaching over the educational TV system.

Senator BIBLE. So you will have adequate facilities? This money is available now?

Mr. LEE. Yes, sir; we will have very good facilities.

Senator BIBLE. I have no further questions, Mr. Chairman.

Chairman HAYDEN. Any questions.

Senator BARTLETT. Governor, is American Samoa one island, several, or many?

Mr. LEE. It is seven islands, but most of the population is concentrated on one, Senator Bartlett.

### TOTAL GOVERNMENT EMPLOYEES

Senator BARTLETT. How many government employees are there altogether?

Mr. LEE. Altogether, we have about 1,500. This varies a great deal because we are involved in this large development program, so at certain stages we might have more, we might have 2,500, but at the present time our operations maintenance runs to about 1,500.

Senator BARTLETT. And of these, 300 are Americans?

Mr. LEE. It is less than 300. It is about 225, as I recall, with this peak budget. Then it will cut down and they will be replaced by Samoans as rapidly as we get these trained people back.

Senator BARTLETT. Do the civil service, U.S. civil service rules and regulations apply in respect to your employees?

Mr. LEE. Senator Bartlett, they apply to some employees. Until very recently, we could not hire Federal employees and keep them under the civil service system. Last year, the Civil Service Commission agreed, because of our difficulty in recruiting qualified persons, to let us recruit Federal employees, keep them under the retirement system, but we are in excepted positions.

### INCREASED PRIVATE INDUSTRY PAYROLL

Senator BARTLETT. Did you say the private payroll had doubled in the last 18 months?

Mr. LEE. Yes, sir.

Senator BARTLETT. What does it amount to now?

Mr. LEE. It would amount to about 1,200.

Senator BARTLETT. What are these three new industries?

Mr. LEE. The three new industries are the Star Kist Fish Co., fish processing company; the American Can, a company which manufactures tin cans for the fish industy; and Cocoanut Processing Co. We also have a small bottling works.

Senator BARTLETT. Star Kist is tuna exclusively?

Mr. LEE. Star Kist is tuna.

### AIRPORT FACILITIES

Senator BARTLETT. When was the airport completed?

Mr. LEE. The airstrip was completed in July of 1962. We have just completed the terminal building within the past week or two. We are going to dedicate it in April of this year.

Senator BARTLETT. How long is the runway?

Mr. LEE. It is 9,000 feet.

Senator BARTLETT. It will accommodate all jets?

Mr. LEE. It will accommodate all jets.

Senator BARTLETT. Was this built under the FAA?

Mr. LEE. No, sir. It started way back in 1956 with a very small appropriation from the Congress and some local funds they had there. When I arrived, it was about 40 percent complete. We completed it within a year for this South Pacific Conference that was there, as far as taking jets. One of the reasons we rushed completion, we wanted to get into the allocation of air routes to the South Pacific.

Senator BARTLETT. Were the field and the terminal built exclusively with Federal funds?

Mr. LEE. That is correct.

Senator BARTLETT. How much did the field, itself, cost?

Mr. LEE. Mr. Screen tells me about $3.8 million for the field. We spent about a total of $4.2 million. This is exclusive of expenditures of FAA. Since the field was built, FAA has come in to put in certain control facilities that they are building.

Senator BARTLETT. The $4.2 million includes the terminal building?

Mr. LEE. Yes, sir.

Senator BARTLETT. And you have one flight a week at the present time?

Mr. LEE. At the present time on the north-south route and one cross run. We are starting to get a great deal of military traffic. Our military people have been using the landing airport in Fiji and since we have completed our facilities the military have agreed to run as many of their flights as possible through American Samoa and to engender new jobs, and so on.

### HOTEL FACILITIES AND LESSEE

Senator BARTLETT. How large will this luxury hotel be?

Mr. LEE. One hundred rooms.

Senator BARTLETT. And it will be operated, I believe you said, by Intercontinental Hotels?

Mr. LEE. That is right.

Senator BARTLETT. Which is controlled by Pan Am?

Mr. LEE. It is a subsidiary of Pan Am.

Senator BARTLETT. Will there be management positions for the Samoans?

Mr. LEE. We expect that probably Intercontinental will put, at the most, two or three of their people into the hotel from the outside to start out with. The rest will be Samoans. Our agreement specifically calls for the use of Samoans. They will simply provide the overall management.

### APPLICATION OF U.S. MARITIME LAWS

Senator BARTLETT. Do the U.S. maritime laws apply in Samoa?

The reason I ask that question, I was interested because you said that you had gone over to Hong Kong with the idea of having a boat built there. And I would infer from that that the laws don't apply because here you couldn't go abroad to have the ship built.

Mr. LEE. I hesitated a little. They do not apply in the sense they applied to Alaska, when Alaska was a Territory, or other Territories. We have ships registered on the west coast, that maintain their headquarters there, that comply with maritime laws. But general laws within American Samoa are not in effect.

U.S. JURISDICTION OVER AMERICAN SAMOA

Senator BARTLETT. Does the United States own American Samoa?

Mr. LEE. Yes. The chiefs ceded American Samoa to the United States.

Senator BARTLETT. Is it a territory?

Mr. LEE. It is an unincorporated territory. It has never had an organic act. It was simply set up under Navy jurisdiction and operated that way for about 50 years and then turned over to Interior in 1951. It has a constitution that has been approved by the Secretary of the Interior about 3½ years ago. It is unincorporated, no organic act.

Senator BARTLETT. You are appointed by the President; that is, the Governor?

Mr. LEE. By the Secretary of the Interior.

Senator BARTLETT. For how long a period?

Mr. LEE. It is an indefinite period. I serve at the pleasure of the administration.

OFFICIALS AND BRANCHES OF THE GOVERNMENT

Senator BARTLETT. What immediate members of the official family do you have, the top?

Mr. LEE. We have a secretary of the territory who is also appointed by the Secretary of the Interior. We have a chief justice and an associate justice appointed by the Secretary of the Interior. The remainder of the people are appointed by the Governor.

Senator BARTLETT. Does the judiciary report to the Interior?

Mr. LEE. They report to the Secretary of the Interior and there is a complete separation between the executive and judiciary.

SCHOOL FACILITIES

Senator BARTLETT. You said every child can go to school now?

Mr. LEE. That is right.

Senator BARTLETT. You will be interested to know, Governor Lee, I was thinking that that can't yet be said of Alaska, with respect to Indians and Eskimos.

Thank you.

Chairman HAYDEN. Senator Mundt?

Senator MUNDT. No questions.

TOURISTS AND TOURISM

I might say, flying back from South Dakota last Sunday night, I had to go by way of Denver. A lady and a man sat down and they turned out to be a Washington couple who had just made a vacation trip to the Trust Territory and they came away very impressed with the kind of treatment they got from Governor Lee. So, I was glad to know that he developed that kind of diplomatic chivalry that we like to have prevail.

Thank you for sending home some happy tourists.

Mr. LEE. Thank you, Senator.

When we get the hotel, I hope we will have a lot of happy tourists. At the present time, we are trying to keep tourists out. This is one of the most promising things we have. We have beautiful islands. I am hoping to see local revenues show that some time in the future so this island will be self-sufficient.

Chairman HAYDEN. If there are no further questions, we thank you, sir; and we will hear Mr. Goding.

### TRUST TERRITORY OF THE PACIFIC ISLANDS

For the Trust Territory of the Pacific Islands in fiscal year 1965, there is a request for $17,500,000, the maximum apropriation authorized by law. This is $2,500,000 more than was appropriated in fiscal year 1964. The justifications for this estimate will be printed in the record.

(The statement referred to follows:)

### HIGHLIGHT STATEMENT

The purposes and objectives of the administration of the Trust Territory of the Pacific Islands are to promote the political, economic, educational, and social development of the inhabitants and to improve the health and well-being of the people through the introduction and use of modern and improved health measures.

A long-range plan to achieve these purposes and objectives has been undertaken. In order to obtain these objectives, funding has been greatly increased. It is recognized that this funding must be at a level commensurate with expansion and upgrading at all levels of operation.

Initial emphasis in this upgrading program has been given to the school system. The large-scale elementary school and elementary teacher housing program started in 1963 fiscal year will continue into 1965 fiscal year. It is anticipated that the original plan for construction of 409 classrooms and 217 teacher houses and hiring 240 schoolteachers will be approximately realized during 1965 fiscal year. Concurrently, secondary-school expansion is underway.

In addition to completition of the major portion of the large-scale school and teacher housing construction in the budget year, funding is also requested to continue the basic construction program, including hospitals, utilities, etc. Particular emphasis in 1964 and 1965 has been placed on public health requirements. A polio treatment center has been established in the Marshalls. Balance to complete funding for a new hospital at Truk is requested.

Gross costs for transportation and communications systems are expected to increase from $2 million in 1963 fiscal year to $2,500,000 in 1965. The principal reason for this is the increase in traffic caused by acceleration of programs.

The increases requested for all other programs and support activities are relatively minor, with emphasis to shift in 1966 fiscal year after completion of the school and public health construction program.

TRUST TERRITORY OF THE PACIFIC ISLANDS

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|---|---|
| Appropriation, 1963 | $6,600,000 |
| Transferred from "Operation and maintenance, Navy" | 950,000 |
| Transferred from "Military personnel, Navy" | 160,000 |
| Supplemental appropriation, 1963 | 7,290,000 |
| Total available, 1963 | 15,000,000 |
| Appropriation, 1964 | 15,000,000 |

SUMMARY OF INCREASES 1965

| | |
|---|---|
| High Commissioner's office: | |
| Increased pay costs for 1964 positions | +3,000 |
| Increase in operating costs | +14,000 |
| | +17,000 |
| Judiciary: | |
| Increased pay costs for 1964 positions | +5,000 |
| Increase in operating costs | +43,000 |
| | +48,000 |
| Grants: | |
| Increased pay costs for 1964 positions | +92,000 |
| To provide funds for continuation of the accelerated program in educational, including additional stateside qualified teachers, improvement of the public health program, and normal expansions in other categories, such as agriculture, fisheries, political and economic development | +2,343,000 |
| | +2,435,000 |
| Net increase, 1965 | 2,500,000 |
| Budget estimate, 1965 | 17,500,000 |

*Analysis by activities*

| | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. High Commissioner's office | $91,935 | $88,000 | $105,000 | +$17,000 | +$3,000 | +$14,000 |
| 2. Judiciary | 86,941 | 107,000 | 155,000 | +48,000 | +5,000 | +43,000 |
| 3. Grants | 14,821,000 | 14,805,000 | 17,240,000 | +2,435,000 | +92,000 | +2,343,000 |
| Unobligated balance lapsing | 124 | | | | | |
| Total | 15,000,000 | 15,000,000 | 17,500,000 | +2,500,000 | +100,000 | +2,400,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*Summary by activity*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase or decrease (−) |
|---|---|---|---|---|
| A. Direct appropriations: | | | | |
| High Commissioner's Office | $91,935 | $88,000 | $105,000 | $17,000 |
| Judiciary | 86,941 | 107,000 | 155,000 | 48,000 |
| Subtotal | 178,876 | 195,000 | 260,000 | 65,000 |
| B. Grants: | | | | |
| I. Program activities: | | | | |
| Medical services | 933,526 | 1,350,000 | 2,120,000 | 770,000 |
| Education | 963,272 | 1,775,000 | 3,900,000 | 2,125,000 |
| Protection to persons and property | 499,580 | 530,000 | 575,000 | 45,000 |
| Resources management and development | 839,688 | 1,119,200 | 1,285,000 | 165,800 |
| Subtotal | 3,236,066 | 4,774,200 | 7,880,000 | 3,105,800 |
| II. Operations, maintenance, transportation, and communications | 4,570,517 | 3,277,100 | 3,575,000 | 297,900 |
| III. General government | 1,511,670 | 1,653,700 | 1,715,000 | 61,300 |
| IV. Supply stock revolving fund | | | 150,000 | 150,000 |
| V. Construction | 905,904 | 6,000,000 | 4,920,000 | −1,080,000 |
| Subtotal | 10,224,157 | 15,705,000 | 18,240,000 | 2,535,000 |
| Less estimated local revenues | 1,336,888 | 900,000 | 1,000,000 | 100,000 |
| Net grants required | 8,887,269 | 14,805,000 | 17,240,000 | 2,435,000 |
| Total | 9,066,145 | 15,000,000 | 17,500,000 | 2,500,000 |

NOTE.—Construction funds totaling $6,594,911 from the 1963 supplemental appropriation, which were unexpended as of June 30, 1963, were carried forward into fiscal year 1964.

*Consolidated activities breakdown of 1965 estimates between nonconstruction and construction items*

| | Nonconstruction | Construction | Total estimate, 1965 |
|---|---|---|---|
| A. Direct appropriations: | | | |
| High Commissioner's Office | $105,000 | | $105,000 |
| Judiciary | 155,000 | | 155,000 |
| Subtotal | 260,000 | | 260,000 |
| B. Grants: | | | |
| I. Program activities: | | | |
| Medical services | 2,120,000 | $888,000 | 3,008,000 |
| Education | 3,900,000 | 1,304,000 | 5,204,000 |
| Protection to persons and property | 575,000 | | 575,000 |
| Resources management and development | 1,285,000 | | 1,285,000 |
| Subtotal | 7,880,000 | 2,192,000 | 10,072,000 |
| II. Operations, maintenance, transportation, and communications | 3,575,000 | 2,728,000 | 6,303,000 |
| III. General government | 1,715,000 | | 1,715,000 |
| IV. Supply stock revolving fund | 150,000 | | 150,000 |
| Subtotal, grants | 13,320,000 | 4,920,000 | 18,240,000 |
| Less: | | | |
| Estimated local revenues | 1,000,000 | | 1,000,000 |
| Estimated grant required | 12,320,000 | 4,920,000 | 17,240,000 |
| Total estimate, 1965 | 12,580,000 | 4,920,000 | 17,500,000 |

*Statement of estimated revenue by source*

| Source of revenue | Actual, 1963 | Estimate, 1964 | Estimate, 1965 |
|---|---|---|---|
| Public health department: Medical and dental fees | $53,790 | $50,000 | $75,000 |
| Public works department: | | | |
| Building, land, and dwelling rental | 145,262 | 180,000 | 225,000 |
| Equipment rental | 2,688 | 5,000 | 10,000 |
| Garage and service charges | 14,664 | 15,000 | 25,000 |
| Total, public works | 162,614 | 200,000 | 260,000 |
| Utility services: | | | |
| Power | 55,024 | 70,000 | 80,000 |
| Water | 20,084 | 10,000 | 25,000 |
| Telephone | 4,911 | 3,000 | 5,000 |
| Total, utility service income | 80,019 | 83,000 | 110,000 |
| Communications: Commercial cable revenue | 34,169 | 45,000 | 50,000 |
| Agriculture department: Agriculture products sale | 13,502 | 20,000 | 30,000 |
| Transportation service: | | | |
| Sea transportation | 687,286 | ---------- | ---------- |
| Air transportation | 293,892 | ---------- | ---------- |
| Cargo handling | ---------- | ---------- | ---------- |
| Stevedoring | ---------- | ---------- | ---------- |
| Total, transportation service | 981,178 | ---------- | ---------- |
| General revenues: | | | |
| Internal revenue | 3,591 | 10,000 | 5,000 |
| Copra processing tax | 187,855 | 300,000 | 300,000 |
| Cigarette tax | 58,116 | 65,000 | 75,000 |
| Licenses, fines, and forfeitures | 5,030 | 7,000 | 8,000 |
| Trochus royalties | 3,057 | 5,000 | 5,000 |
| Interest earned | 4,528 | 50,000 | 50,000 |
| Scrap metal sales and royalties | 6,900 | 35,000 | 7,000 |
| Discount earned | 3,858 | 15,000 | 5,000 |
| Miscellaneous, not classified | 17,555 | 15,000 | 20,000 |
| Total, general revenues | 290,490 | 502,000 | 475,000 |
| Total, revenue applied | 1,615,762 | 900,000 | 1,000,000 |

A. DIRECT APPROPRIATIONS

*High Commissioner's office, $105,000*

The High Commissioner is responsible to the Department of the Interior for administration of the Trust Territory of the Pacific Islands. The 1965 estimate of $105,000 will provide for salaries of his immediate staff, consisting of the High Commissioner, Deputy High Commissioner, a secretary to the High Commissioner, a secretary to the Deputy High Commissioner, and the executive officer, as well as necessary travel and other transportation expenses, purchasing of supplies, equipment and defraying of other necessary expenses.

The estimate is broken down as follows:

| | |
|---|---|
| Personnel compensation and benefits | $88,000 |
| Travel and other transportation | 14,000 |
| Supplies, materials, and equipment | 3,000 |
| Total | 105,000 |

*Judiciary, $155,000*

The estimate of $155,000 is an increase of $48,000 over the current year. It provides for the salaries of the chief justice, associate justice, 2 court reporters, and a new position of law teacher-trainer as well as 25 full-time Micronesian judges and clerks of court as well as approximately 110 part-time judges and clerks who serve on a per diem basis, and are only on duty and paid when court is in session. Of this increase over fiscal year 1964, $8,000 is in the area of travel, equipment, and supplies, with the balance of increase of $40,000 in salaries, including the addition of a law teacher-trainer, upgrading of the court reporter and judicial secretary, and general pay increases for Micronesian employees.

The breakdown for the funds requested is shown below:

| | |
|---|---|
| U.S. personnel compensation and benefits | $75,000 |
| Micronesian judges and clerks of courts (including part-time per diem employees) | 55,000 |
| Travel and transportation | 20,000 |
| Supplies, materials, and equipment | 5,000 |
| Total | 155,000 |

*B. Grants, $17,240,000*

| | |
|---|---|
| Administration and operation | $12,320,000 |
| Construction | 4,920,000 |
| Total | 17,240,000 |

An appropriation of $17,240,000 is estimated to be required for the trust territory grant funds operations and construction in fiscal year 1965 to supplement local revenues. These funds will permit continuation of the development program in education, and expansion in public health, political and economic development, public works, and construction.

PROGRAM ACTIVITIES

*Medical services, $2,120,000*

| Category | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase or decrease (—) |
|---|---|---|---|---|
| Administration | $90,332 | $253,000 | $202,000 | —$51,000 |
| Hospitals | 639,071 | 728,800 | 1,083,000 | 354,200 |
| Field medical services | 65,228 | 133,500 | 463,000 | 329,500 |
| Sanitation services | 35,240 | 55,600 | 85,000 | 29,400 |
| Dental services | 62,087 | 105,700 | 152,000 | 46,300 |
| Medical education and training | 15,410 | 33,000 | 70,000 | 37,000 |
| Nursing school | 26,158 | 40,400 | 65,000 | 24,600 |
| Total | 933,526 | 1,350,000 | 2,120,000 | 770,000 |

*Medical services, $2,120,000*

This amount requested is an increase of $770,000 over fiscal year 1964, and reflects expansion and upgrading of medical care in all aspects—hospitals, field medical services, sanitation services, dental services, training, and the territory nursing school.

1. *Administration, $202,000.*—The decrease of $51,000 is offset by the increases shown under hospital and field services, for more accurate budgeting. There is actually an increased medical and public health staff at the headquarters level which is required for direction of the overall public health and medical services program. This staff will be increased by the addition of an assistant director of medical services and a medical records statistician. Funds are also provided for the director of medical services, the public health statistician, the supervisory hospital administrator, director and assistant director of sanitation services, two special assistants to the director of public health, and eight technical and clerical positions. A contingency fund of $60,000 is also established to cover unforseen emergencies, such as the polio epidemic which struck the Marshalls in fiscal year 1963.

2. *Hospitals, $1,083,000.*—An increase of $354,200 is required to cover salary costs brought about by the addition of 1 U.S. senior medical officer, GS–13, on each district hospital staff (about $102,000), better feeding programs at all hospitals, staff increases in 2 new hospital units as well as in other existing district hospitals, essential increases in medical supplies, and overall salary increases for 373 Micronesian employees. Funds are also included for the operation of the new polio rehabilitation clinic at the Marshalls Hospital. Nine hospitals—six of them general hospitals at each of the district centers plus three enlarged field hospitals—one at Ebeye in the Marshalls, one at Kusai in Ponape, and one at Rota in the Mariana Islands district, are covered by this category. These hospitals provide inpatient and outpatient care, and perform surgery, X-ray

and like diagnosis, operate laboratories for diagnosis of blood, tissue, etc., as well as all the many services involved in the operation of a hospital.

A capital equipment fund of $100,000 is also established, which will be used to replace obsolete and wornout equipment in the nine hospitals.

3. *Field medical services, $463,000.*—Increased emphasis will be placed during fiscal year 1965 upon the field medical services, with close association with sanitation services. Six public health doctors will be recruited at an estimated cost of $120,000 to work in the districts to supervise health education and preventive medicine programs. The sum of $100,000 will be used to establish a territory-wide immunization fund to protect the more than 80,000 population poliomyelitis, influenza, diphtheria, whooping cough, tetanus, tuberculosis, typhoid, measles, cholera, and smallpox. Included also is $56,000 which will cover the operating of a field medical vessel, funded in fiscal year 1964, and scheduled for construction in 1964. This ship will be used primarily to carry public health teams for extended stays in the various districts.

There are approximately 140 field dispensaries scattered throughout the territory which provide immediate first aid and limited medical treatment through the services of health aids. An increase of $53,500 is required to provide all field dispensaries with adequate medical supplies and equipment and to operate an intensified training program which will permit all health aids to spend at least 6 months in specialist training at district center hospitals every 2 years.

4. *Sanitation services, $85,000.*—Intensive education, policing, and constructive measures are needed in the field of general sanitation. An increase of $29,400 is required for expanded programs of pest eradication, particularly rodents, flies, mosquitoes, for an increase of sanitation staff, for public education programs, and for purchase of essential equipment and supplies. Specific attacks will be launched against amoebic dysentary, filiariasis, and rodent eradication. These programs will be coordinated with those of the new public health doctors under the field medical program.

5. *Dental services, $152,000.*—Complete dental services including preventive care, oral hygiene, dental surgery, dental education and training, as well as the usual extraction, filling, and cleaning of teeth is covered in this category. Each district center has a dental office and, in addition, major population centers are staffed and equipped with dental personnel to provide immediate dental services. Dental officers also accompany field trips to the various islands and atolls, equipped with portable dental equipment and supplies, and provide on-the-spot treatment and preventive measures. An increase of $28,800 has been provided in general dental services to cover costs of programed pay raises for 43 Micronesian employees, for increased supplies for district center dental offices, and for field dental work, and for new equipment. A school of dental hygiene in the Marshall Islands graduates students from throughout the Trust Territory as dental hygienists. For this school, in fiscal year 1965, an increase of $17,500 has been provided, $14,000 of which defrays the salary of the director of dental services who also supervises the school of dental hygiene. This formerly was covered in headquarters administration and thus does not reflect additional fund increase over prior years. Feeding costs, school supplies, and needed equipment are covered in the remainder.

6. *Medical education and training, $70,000.*—An increase of $37,000 is needed to upgrade and expand the medical education and training program under which Micronesian young men and women are assuming leadership and operation of the public health and medical service program. Prior to 1964, the bulk of medical training was at the Central Medical School at Fiji with refresher training at the Navy hospital in Guam or in Honolulu. A new policy of providing full medical training leading to the M.D. degree has greatly increased costs of medical student training. Twelve premedical scholars now are in colleges and universities working toward medical degrees and this number will be doubled in 1965. Some 10 students are completing work at the Central Medical School in Fiji. Except for technicians—i.e., X-ray, laboratory technicians—the Suva School will not be used in the future. Additionally, postgraduate and refresher training for present Micronesian medical officers has been intensified and expanded in universities and hospitals in Guam, in Hawaii, and in the United States. Scholarships in hospital administration, in other technical fields have been established, in many instances, for the first time in the history of the public health administration. Sanitation training also is expanded. In fiscal year 1965, it is expected that some 50 personnel will be in medical and public health scholarships or in special training courses.

7. *Nursing school, $65,000.*—In fiscal year 1964, the nursing school was transferred from inadequate school facilities in Koror, Palau, to Saipan to permit expansion from a student body of approximately 25 to 40. New nursing school buildings are in the process of construction and when completed in 1964 will permit an enrollment of 50 young men and women. The increase of $24,600 is required for salaries of two additional professionally trained nurse-instructors holding degrees, increased feeding costs due to expansion of student body to approximately 40 students, salary increase for Micronesian staff members, and for essential equipment and teaching supplies for the expanded school enrollment. The expansion of the nursing school is of major significance since all aspects of hospital and medical services expansion, both district and field, rest upon an adequately trained nursing staff.

*Education department, $3,900,000*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Education—Administration | $264,669 | $203,200 | $223,200 | $20,000 |
| Secondary schools (high schools) | 306,917 | 668,200 | 851,600 | 183,400 |
| Elementary schools | 312,505 | 721,900 | 2,483,400 | 1,761,500 |
| Special training (scholarships) | 79,181 | 123,000 | 250,000 | 127,000 |
| Adult education and radio | | 58,700 | 91,800 | 33,100 |
| Total | 963,272 | 1,775,000 | 3,900,000 | 2,125,000 |

This budget presentation recognizes the need to greatly strengthen the educational system of the territory at all levels. While the bulk of this emphasis since fiscal year 1963 has been at the elementary level, provision is also made herein for the establishment of full senior high schools in each district, for a sharp increase in the amount of higher education available, and for more attention to the educational level of the adult populace.

At the elementary level it provides for the employment of 211 stateside qualified teachers and for their housing. It provides for the construction of additional classrooms to make a grand total of 487 newly constructed since the beginning of this program in fiscal year 1963. This section provides only for the program costs of education, as the construction aspects, both classroom and housing, are included in the construction budget request. With a view to eventually replacing this complement of teachers with fully certified Micronesian teachers, it provides additional opportunities for high school and college education for future teachers and other leaders, and it also provides for the continued operation of a center within the territory for upgrading teachers now in the profession who for reasons of age or family obligations are unable to leave the territory for higher education.

*Administration, $223,200.*—Funds are herein provided for the administration offices of the educational program, including the office of the director of education and the offices of the district educational administrators at all six districts. Three new positions needed in the overall expansion program have been added. These are a coordinator of secondary education, coordinator for nonpublic schools assistance, and a supervisor of health education. Other staff covered are the director of education, six district educational administrators, and the following U.S. positions: A coordinator of elementary education, a supervisor of the English program, a supervisor of library services, an administrative assistant as well as 16 clerical and administrative Micronesian positions. Funds requested are to be used for salaries, travel, printing and publication, equipment and supplies.

*Secondary schools (high schools), $851,600.*—The $183,400 increase requested will expand secondary education to full high school level in all districts. The term "secondary school" is used to cover grades 7 through 12 (although in some more isolated communities grades 7 and 8 are being added on to existing elementary schools; here the costs of grades 7 and 8 are included under the amounts for elementary schools). The Pacific Islands Central School, a senior high school, is being integrated into the Ponape secondary school system, and with fiscal year 1965 will become the Ponape District High School. Thus Ponape in effect already has a full 12-year school system. In fiscal year 1963, a 10th grade was added onto the existing intermediate schools in four other districts (Marianas, Palau, Truk, and Marshalls), and in fiscal year 1964 an 11th grade was added in

these same districts. With fiscal year 1965 these districts will add the 12th grade, thus becoming full senior high schools. The Yap District is proceeding along these same lines in the creation of a senior high school, having added one grade per year in fiscal year 1964, and thus should attain its full senior high school 1 year later, in fiscal year 1966. A new junior high school was begun on the outlying island of Ulithi in the Yap District in fiscal year 1964. It is anticipated that the secondary enrollment will increase by 778, from 2,257 in fiscal year 1964 to 3,035 in fiscal year 1965. Additional Micronesian teachers will be needed to cope with the enrollment increases at the junior high level, and as support personnel for the newly added grades in boarding schools. The establishing of new senior high schools makes necessary the building up of new senior high libraries and the purchase of additional appropriate textbooks and instructional equipment, materials and supplies for the added grades. This budget presentation provides for a total of 57 U.S. teachers, teacher-supervisors, and principals and 127 Micronesian teachers and support personnel to staff a total of six junior-senior high schools and two junior high schools (Kusaie and Ulithi) with a total anticipated enrollment of 3,035. The increase of $183,400 over fiscal year 1964 provides for an increase of 27 U.S. personnel and 9 Micronesian personnel for the grades being added on and to handle anticipated enrollment increases in existing grades, and for the acquisition of library books, textbooks and instructional aids for the newly created senior high schools, and for nonpublic secondary schools.

*Elementary schools, $2,483,400.*—This is the area (grades 1 to 6) which is the most affected by the accelerated development program launched in fiscal year 1963. Prior to this program, the elementary schools were financed primarily by the district revenues with funds derived from local taxes, fees, and assessments. The trust territory provided supervisory personnel, and most of the school supplies, with the local areas paying the teacher salaries. Hampered by too little funds locally (and the inability of the trust territory government to provide substantial assistance), the elementary school system struggled under extreme hardships. Salary payments to teachers was irregular and generally at a very low pay level. School structures ranged from barely adequate to completely inadequate, unfurnished dilapidated buildings. In fiscal year 1963, not taking into account the accelerated construction itself, a long stride forward toward financial improvement was made in the establishment of the elementary teacher subsidy program, whereby salaries were raised to a more equitable level, and greater regularity in payment as assured. Also, in fiscal year 1963, a massive program of elementary classroom construction was launched, and is scheduled to result in 487 classrooms being built, as well as 246 teacher houses, to permit the hire of 271 stateside qualified teachers to upgrade the quality of teaching at the elementary level. In this fiscal year 1965 elementary school budget, funds are provided to employ 211 teachers at a cost of $1,578,600. In addition to the salaries of these teachers, $904,800 is requested to continue the employment of the elementary supervisory and administrative personnel, programed at 19 U.S. positions and 40 Micronesian positions in fiscal year 1965, and stock and support all the existing classrooms, including nonpublic schools. Also included in this amount is $450,000 needed to pay approximately 488 locally hired Micronesian teachers in the elementary school system, and to continue the operation of the Micronesian Teacher Education Center located at Ponape, which was inaugurated in fiscal year 1964 to help in the upgrading of this force of Micronesian teachers. By fiscal year 1965, elementary enrollment is expected to rise to 12,250 children.

*Special training (scholarships), $250,000.*—Funds are herein provided for scholarships to promising students throughout the trust territory. Most of the scholarship students matriculate at the College of Guam, but certain of the scholarships are in the Philippines, Hawaii, and other areas of the United States when deemed more advisable and where specialized training is called for. Some 65 students received scholarships in 1964. This fund has been increased by $127,000 to approximately double the number of scholarships in order to make it possible for more Micronesian high school graduates to avail themselves of higher education so that they may return to assume positions of leadership in Micronesia, thereby eventually decreasing the need for U.S. personnel. Included in this amount are the costs of the operation of the dormitory opened by the trust territory for its students at the College of Guam, including the salaries of a dormitory manager and headmaster, an assistant manager in charge of counseling, and a cook. Salaries for the dormitory operation are $27,700.

*Adult education and radio, $91,800.*—In line with the need for the education level to be raised for all age groups, the administration is attaching increasing

importance to this program. With increasing numbers of transistor radios among the general populace, the medium of radio broadcasting has been found to be an extremely effective means of reaching more and more citizens. By fiscal year 1965 all districts are expected to have broadcast stations. Other aspects of this program include the learning of skills and the participation of the people in community advancement, with both formal classroom work where called for, and less formal types of instruction and learning. The increase of $33,100 over fiscal year 1964 is occasioned chiefly by the hiring of a U.S. specialist in adult education and educational broadcasting in each of the six districts.

*Protection to persons and property, $575,000*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase or decrease(—) |
|---|---|---|---|---|
| Office of attorney general | $59,993 | $74,500 | $86,600 | $12,100 |
| Office of public defender | 31,284 | 30,000 | 34,000 | 4,000 |
| Office of land management | 125,184 | 141,500 | 157,200 | 15,700 |
| Department of public safety | 283,119 | 284,000 | 297,200 | 13,200 |
| Total | 499,580 | 530,000 | 575,000 | 45,000 |

*Office of attorney general, $86,600.*—Headed by the attorney general of the Trust Territory, this office provides comprehensive legal service and assistance to the High Commissioner and his staff at headquarters and throughout the Trust Territory. This includes the drafting of laws and amendments, executive orders, and other regulations having the force and effect of law, drafting or reviewing contracts for legal sufficiency, and all other documents of a legal nature. The accelerated elementary school construction program started in fiscal year 1963, as well as other areas of acceleration in construction, involve a considerable amount of construction on contract basis, greatly increasing the workload on this office for contract review and preparation.

The attorney general is assisted by two American assistant attorneys general, one primarily in land management affairs, and a Micronesian assistant attorney general, recently graduated from a law school in the United States. In addition, the immediate staff of the attorney general includes a U.S. secretary plus two Micronesian clerical assistants.

The functions and expenses of the district attorney are also included in this budget, as he functions under the direction of the attorney general. The district attorney represents the government in all matters, civil and criminal, in which the government is a party. To cover the wide areas involved in trust territory administration, a significant portion of the district attorney's expenses is in travel expenses, including per diem.

The public safety and the land management programs, although directly supervised by the attorney general are budgeted in their own categories, under this general heading of "Protection of persons and property." Certain generalized supports to these programs, however, are funded out of this attorney general budget. The $12,100 increase is primarily to fund pay increases and increments for both United States and Micronesian employees, fund an additional Micronesian clerk, and a very small increase in the level of funding for materials and supplies.

*Office of public defender, $34,000.*—This office, headed by an American attorney designated as the public defender, provides legal representation for the people of the trust territory, mainly those charged with a crime. In addition to the public defender, Micronesian public defender representatives are employed in each of the districts, some with assistants. They are trained to carry out legal defense in courts, as well as legal counseling on matters criminal or civil in nature.

This budget provides, in addition to the salaries of the above, funds for travel costs, witness fees, material, supplies, and equipment. The $4,000 increase in this category will provide for pay increments and raises and a small amount for increased purchasing of needed additional office equipment.

*Office of land management, $157,200.*—The functions of the office of land management include the making of title determinations, surveying, and verifying boundaries, holding of land hearings, settlement of claims against the gov-

ernment, homesteading, and implementation of the recommendations of the district land advisory boards, particularly with respect to utilization of public lands.

Although steady progress has been made in land matters, a considerable backlog of surveying remains to be performed in all districts to determine the extent of public land, and a major land claim for use of land by the United States is still pending in the Marshalls district.

At the headquarters level, the salary of the chief survey and cartographic engineer is herein included, as well as his necessary expenses, particularly allowing for his extensive travel throughout the trust territory. At the district level, two U.S. land law examiners, four Micronesian land title officers, and three U.S. surveyor and cartographic engineers are provided for. In addition, a regular complement of Micronesians, including assistant cartographers, engineering aides, etc., are employed.

The increase of $15,700 for this category will primarily fund pay increases and increments for existing positions with materials and supplies maintained at substantially the purchasing level of fiscal year 1964.

*Department of public safety, $297,200.*—The district constabulary and fire departments and the office of the director of public safety at headquarters make up this section. The constabulary (inclusive of the fire department) provides protection to persons and property in a literal sense as this unit is responsible for both police and fire protection throughout the Trust Territory.

Each district constabulary force is headed by a Micronesian district sheriff, appointed by the high commisssioner. The sheriffs are also fire chiefs in all districts. In addition to the sheriffs, the constabulary is staffed by deputies, sergeants, corporals, constables, matrons, and clerks. In the Mariana District, a definite fire complement exists, where in other districts, the constabularymen double as firefighters.

Technical and general supervision is provided by a U.S. director of public safety under the overall direction of the attorney general. Each district has a jail, police headquarters and fire station, which are operated and manned by the constabulary. The constabulary is armed and equipped with the usual items of police equipment, fully uniformed, and provided with police vehicles.

At Saipan, it has been necessary to include a special guard complement to patrol areas known as Marpi and Kagman, because of the high incidence of unexploded explosives in the areas, both as residues from World War II and from a more recent military training program.

In addition to necessary equipment, supplies and salaries, funds are provided for intensive and continuing training in all aspects of law enforcement, public safety, and combating of juvenile delinquency. Selected members of the constabulary serve as district prosecutors and funds are herein provided for the formal and intensive training courses received by these district prosecutors.

The increase of $13,200 for fiscal year 1965 will mainly cover pay raises and increments with materials, supplies, and other costs remaining substantially at the level of fiscal year 1964.

*Resources management and development, $1,285,000*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase or decrease (−) |
|---|---|---|---|---|
| Programs office | $59,661 | $33,000 | $31,400 | −$1,600 |
| Political affairs office | 33,357 | 36,000 | 35,000 | −1,000 |
| Commerce and community development | 85,392 | 112,000 | 112,500 | 500 |
| Economic development | 98,574 | 104,000 | 186,100 | 82,100 |
| Agriculture | 429,466 | 705,000 | 750,000 | 45,000 |
| Economic development fund | 100,000 | 100,000 | 100,000 | |
| Literature production | 9,185 | 8,500 | 28,000 | 19,500 |
| Information office | 24,053 | 20,700 | 42,000 | 21,300 |
| Total | 839,688 | 1,119,200 | 1,285,000 | 165,800 |

*Resources management and development, $1,285,000.*—This activity, under the jurisdiction of the program officer, pertains to the broad field of economic, political, and social advancement of the people of the trust territory. Included as specific functional groups are the political affairs office; the commerce and community development department; economic development department; agriculture; fisheries; and literature production and information.

*Programs office, $31,400.*—This funding provides for the salaries of the program officer and his secretary plus administrative and office costs. A decrease of $1,600, below the funding level of fiscal year 1964, was made possible by better distribution of costs to other program areas described below. The program officer is charged with the direction and supervision over program development in the trust territory, and also includes staff advisory functions in the fields of public health and education.

*Political affairs office, $35,000.*—This section is headed by an American political affairs officer, with two Micronesian assistant political affairs officers and a clerk-typist. The two Micronesian assistants have received advanced education in the United States.

One of the basic functions of the political affairs office is to assist and advise the Council of Micronesia in its advancement toward status as the territory-wide legislature of Micronesia and $10,000 is provided under this heading for support of this Council of Micronesia. In addition to work with the council, the political affairs officer works with and advises local municipalities and congresses in development of political sophistication. He assists in chartering and seeks to develop responsibility for planning, budgeting, control of expenditures, and management of local government affairs. A decrease of $1,000 has been made possible in this category by the original acquisition of equipment and supplies during fiscal year 1964 which should not be a recurring expense.

*Commerce and community development, $112,500.*—An American community development officer heads this activity under the general direction of the programs officer. This is a program of active and advisory assistance to the people and communities of Micronesia, particularly in the villages and municipalities in outlying areas, in improving their standards of living by bettering their health, economic and social standards. This is primarily a coordinative program, whereby the community development officer, working with approximately 60 district employees in this field, work closely with village leaders and the people in implementing and improving sanitation, education development, local industries, etc., of the communities.

Funding at headquarters for this activity is requested in the amount of $40,500 to provide funding for pilot community development projects, in addition to the salary of the community development officer and a Micronesian clerk. Two Micronesian assistant community development officers for headquarters are funded for 1965. Requested at the district level is $72,000 to defray the salary and operational costs of the 60 district employees mentioned above.

*Economic development, $186,100.*—The $52,800 increase in this section ($29,300 in fisheries) will fund primarily the salaries and expenses of two new cooperative officers and a secretary, and fully fund two other positions (chief cooperatives officer, business analyst) which were vacant for portions of fiscal year 1964 and lapse funded. A $3,000 increase is also provided for in materials and supplies and to permit better coverage of the territory.

An American business analyst is being actively recruited during fiscal year 1964 to strengthen this section. In addition two additional American cooperative officers and a secretary are being added in fiscal year 1965 to further improve the cooperative management and accounting systems. The chief cooperative officer will be on the headquarters staff and the two new cooperative officers provided for in this budget will travel the districts to perform their inspections, teaching, and services at the field level. A Micronesian assistant economic development officer and a clerk-typist, plus a cooperative officer on a temporary loan basis from the South Pacific Commission round out the present economic development section at headquarters.

This section conducts research into economic and commercial development projects and takes active measures to encourage development of Micronesia toward economic betterment and self-sufficiency. The chief economist also serves as the chairman of the copra stabilization board. Under separate heading, additional funds for the economic development loan fund is requested. Among the functions of this group are the teaching of how to set up cooperatives, how to manage them, and keep proper records. Also, the officers in this section seek to develop local industry, such as handicraft merchandising, use of marine products, new uses of coconuts, etc.

Late in fiscal year 1963, the fisheries development and operations of the trust territory was shifted from agriculture and fisheries to the economic development section. This budget request of $186,100 includes funding for the fisheries program, estimated at $98,300—$87,800 in economic development section. The fisheries section is headed by a fisheries marine biologist, with headquarters at Palau. In fiscal year 1965, it is proposed to add three U.S. fisheries specialists to the Marianas, Palau, and Truk district staffs and funds for salaries are accordingly provided. Thirty-six Micronesian employees, ranging from assistant fisheries officers to shell divers, boat operators, clerks, etc., are also provided for. In addition, a boatbuilding project was started in Palau during fiscal year 1963 headed by an American boatbuilder working primarily with the various fisheries and boatbuilding cooperatives, and funding in the amount of $15,000 is included herein to defray his contract salary cost plus operating and administrative expenses.

Fisheries and other marine development offers one of the more promising economic development areas for Micronesia and is being given full attention. A commercial tuna-packing operation is starting operations in Palau and giving a big push forward to this program, and fisheries trainees continue being sent to the United States to develop further skill and knowledge.

The $29,300 increase in the fisheries budget will primarily be utilized in the addition of the three new American fisheries specialists and in the inauguration of organized fisheries programs at the Marianas and Truk as well as further development at Palau.

*Agriculture department, $750,000.*—The agriculture development program follows a basic policy of extending maximum sufficiency to the agricultural economy of Micronesia by development of the agricultural resources of the territory. The agriculture program has two basic divisions. First is the development of agricultural products for local consumption. The second is the improvement of the local economy by development of special crops and farm products for export to increase cash income. The major export crop and the basic source of locally generated income is copra. Cacao production, guided by an intensive program at Ponape, has potentials of developing into an important export crop. Ramie, from which a high-grade fiber is produced, is in great demand. This crop is being promoted as an export item. A pilot project has proven that the crop can be very successfully grown in Palau. A black pepper development pilot project initiated several years ago in Ponape is being extended on a commercial scale in that district. Vegetable and fruit crop production is being emphasized as a part of the basic agricultural economy of the Marianas especially on Saipan, Tinion, and Rota. Cattle, hogs, and poultry, also a vital part of the economy, are being emphasized especially in the Marianas where a livestock breeding and distribution center for the territory will be set up. Rice, the main starch staple that is imported into the territory, is being tested for development in several of the districts most suited for growing of this crop.

A pilot project initiated the last fiscal year will be continued and further developed in fiscal year 1965 at Ponape. Additionally, a pilot project dealing with the development and ultilization of coconut fiber as an item for local use and export has been initiated in Truk district and will be continued and further extended in fiscal year 1965. It is expected that coconut fiber can be developed as a byproduct of the copra industry and provide additional income for the low island areas where very little else can be produced as a source of cash income in support of increasing populations. The entomology program is being expanded to keep pace with the intensified agricultural crop development program. Funds requested are broken down by activities in the following manner:

| Activity: | *Estimates, 1965* |
|---|---|
| Headquarters administration | $140,500 |
| District agriculture station | 433,500 |
| Headquarters entomology (Palau) | 25,000 |
| Beetle control program (Palau) | 10,000 |
| Ramie development project (Palau) | 18,000 |
| Coir fiber development project (Truk) | 15,000 |
| Cacao development project (Ponape) | 26,000 |
| Cacao development project (Truk) | 4,000 |
| Rice development project (Ponape) | 18,000 |
| Pepper development project (Ponape) | 20,000 |
| Farm institute (Ponape) | 40,000 |
| Total | 750,000 |

This budget is an increase of only $45,000 over 1964 fiscal year and provides funds in above estimates for the following United States and Micronesian employees and programs. A staff plant pathologist is needed to assist in the control or possible eradication of suspected coconut bud-rot disease in the Marianas, banana leaf-spot diseases in all districts, rice diseases in producing area, cacao diseases in the territory, vegetable crop diseases in the Marianas, breadfruit tree diseases in several districts plus several other minor unknown plant diseases in the territory. Additional agricultural training and education at the Ponape Farm Institute and practical training in suitable foreign areas are a vital and major aspect in assuring progress in developing necessary skills of the local supervisory staff in carrying out the above outlined program.

In addition, the increase will allow for a few additional Micronesian employees and materials and supplies.

*Economic development loan fund, $100,000.*—In each of fiscal years 1963 and 1964, $100,000 was provided to the loan fund for an initial capitalization of $200,000. It is proposed to add an additional $100,000 to the capital of the fund in fiscal year 1965, for a total capitalization of $300,000. It is hoped eventually to increase this development fund to a level of a million dollars. Loans are made primarily to promote the establishment and improvement of small local industrial and mercantile enterprises of all types. The loan fund is also used to guarantee bank loans, thus appreciably broadening the use of the fund.

*Literature production, $28,000.*—The literature production center was established for the purpose of serving each department in producing printed materials of various kinds, including text materials in vernacular and English for the education department as well as informational and instructional material for various other departments such as public health, agriculture, public works, etc. During fiscal year 1964, a specialist in literature production is being hired, and he will be assisted by a Micronesian assistant literature production officer plus a principal clerk.

This budget provides primarily for the administrative and basic operational costs of the office itself on a net basis and does not provide for all the costs of material and supplies incurred by this program. The activities utilizing the services of this literature production center are required to reimburse the center for all costs of such material as well as a reasonable portion of overhead.

The $19,500 increase over the fiscal year 1964 level will provide for the full salary of the literature production specialist (who was provided for in fiscal year 1964 for only part of the year), and permit approximately $8,000 increases in procurement of needed equipment and supplies inventory to more adequately provide for an expanding operation.

*Information office, $42,000.*—This office was formerly budgeted under the heading of "General Government." This office is headed by a Micronesian information officer who is assisted by an American assistant information officer, an American secretary and Micronesian clerk. In fiscal year 1965, a radio and broadcast specialist is being added to this office. This specialist will perform functions involving improvement and coordination of radio broadcast and program functions for headquarters and for the various district broadcast stations.

The basic function of this office is that of preparing and disseminating information releases concerning the trust territory and in preparing various reports for submission to other government agencies. Included are: The Micronesian Reporter, a trust territory house organ issued every 6 weeks, with articles and photographs of local events; monthly reports to the Office of Territories on trust territory activities, the annual report on the trust territory to the Secretary of the Interior, the annual report to the United Nations, as well as various other publications and press releases. Funds are provided for printing of the Micronesian Reporter by the Navy printing office at Guam, plus printing of photographs, done locally at Saipan.

The $21,300 increase will provide for the employment of the radio and broadcast specialist and full-year funding for the American assistant information officer, as well as a modest increase in supplies and equipment, primarily photographic.

*Maintenance and operation of physical facilities, $2,100,000*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase or decrease (−) |
|---|---|---|---|---|
| Administration | $88,727 | $100,000 | $120,000 | $20,000 |
| Headquarters operation and maintenance | 280,894 | 160,000 | 200,000 | 40,000 |
| Central repair shop | 37,936 | 25,000 | 50,000 | 25,000 |
| District public works | 1,591,097 | 1,413,100 | 1,730,000 | 316,900 |
| Total | 1,998,654 | 1,698,100 | 2,100,000 | 401,900 |

*Administration, $120,000.*—The modest increase of $20,000 over the estimate for 1964 fiscal year will be to cover the wages of four additional Micronesian employees, annual salary increments, personnel benefits, and materials and supplies. A reorganization of the public works and construction activities will be made during 1964 fiscal year that will see a better grouping of personnel whose duties are primarily concerned with operation and maintenance of physical plants and those engaged in supervision and construction of new facilities. Prior to this, all personnel were hired under public works and their time charged to public works or construction per daily time reports. That is primarily why no significant increase is requested for public works administration. Further information for the reorganization is provided below under "District public works." This staff consists of five U.S. employees including a director and a dredge operator. The duties of this group are to coordinate and provide technical supervision to construction programs as well as to maintenance and operations.

*Headquarters operation and maintenance, $200,000.*—This amount is requested to provide staffing and service to the headquarters public buildings and housing area. At the beginning of 1964 fiscal year, the Mariana district was performing this service, but a reorganization will see that personnel are transferred to the headquarters staff for this purpose and reduce the district staff. It is believed that greater efficiency and savings to the Government will result from these changes. These funds will provide for a supervisor under general supervision of the director of public works and a staff of 15 employees who will maintain the grounds and repair houses and office buildings. There are 91 houses and 4 public buildings in the area.

*Central repair shop, $50,000.*—This estimate is required to cover costs not readily determined and assigned to districts and activities using the repair services of this shop. As a rule, this shop repairs and overhauls major pieces of equipment only, that are too large or too complicated for the smaller district shops to handle. Work performed is on a reimbursable basis, and if all acquisition of equipment costs and repair costs can be fully covered, a saving might accrue here. The volume of work performed for other activities per annum is estimated at $500,000.

*District public works, $1,730,000.*—The increase of $316,900 over 1964 fiscal year will be required to provide maintenance and logistic support to program activities which have greatly accelerated over prior years. As the education and other programs increase, the support of utilities, maintenance, water systems, etc., will need to be increased to meet the demand.

Effective at the beginning of 1964 fiscal year, a reorganization of the public works department will cause all construction personnel to be transferred and assigned to construction duties only. In brief, each district will have a public works department which will perform ordinary maintenance to homes, public buildings, grounds, etc., repair vehicles and operate the power and water systems. A separate organization will do the force account construction work. During periods of little or no construction demand, the work force can be decreased. It is expected that greater efficiency and possible future dollar savings will result therefrom.

Under this reorganization, each district will be allowed a maximum of only four U.S. employees for operations and maintenance and an average (at this time) of four U.S. employees under construction. The only increases planned in personnel for 1965 are in the headquarters engineering and drafting departments at a cost of about $40,000. The construction plans badly need the support of better engineering and estimates. Other than in this area, if and when construction work can be contracted out, a reduction in force may be possible.

Micronesian employment will rise from about 900 to 950, at an additional cost of about $50,000. It should be pointed out that:

(*a*) Equipment costs to extent possible will, in the future, be funded through a central equipment purchase fund and not charged directly to this account. The new request for 1965 is included in the construction estimate.

(*b*) The stevedoring and cargo handling functions have been transferred to the transportation and communications department.

In addition to wage requirements, the balance of the $316,900 increase will be used to purchase materials, supplies, and expendable equipment. The need for spare parts, especially in powerplants has not been adequately met in the past.

*Transportation and communication services, $1,475,000*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase or decrease (−) |
|---|---|---|---|---|
| Sea transportation | $1,350,540 | $780,000 | $750,000 | −$30,000 |
| Air transportation | 948,985 | 495,000 | 450,000 | −45,000 |
| Stevedoring and cargo handling | 19,384 | | | |
| Communications | 252,954 | 304,000 | 275,000 | −29,000 |
| Total | 2,571,863 | 1,579,000 | 1,475,000 | −104,000 |

*Sea transportation, $750,000.*—The reimbursable contract costs under this category are estimated at $1,750,000 for 1965 fiscal year. Application of revenues and distribution of net costs are computed as follows:

| | |
|---|---|
| Reimbursable contract costs | $1,750,000 |
| Less: Application of estimated cash revenues | −1,000,000 |
| Net cost of operation | 750,000 |

In addition to application of cash revenues from commercial sources within trust territory referred to above, all trust territory cargo is manifested and amount computed on each bill of lading.

The Pacific Micronesian Line fleet which now numbers eight ships is operated on a cost-plus-fixed-fee basis. The gross contract costs for 1965 will rise to approximately $1,750,000 from $1,350,540 mainly because the *Pacific Islander* will see a full year's service as compared to only 3 months use in 1963 fiscal year. This increase in costs amounts to about $250,000. The estimated overall reduction in costs for 1965 fiscal year is based on an estimated $1 million cash revenue figure.

*Air transportation, $450,000.*—The estimated reduction of $45,000 from the 1964 estimate is based on the assumption that cash revenues will hold up. Cash revenues collected from outside commercial sources in 1963 amounted to almost $300,000 compared to $63,000 in 1962 fiscal year. The 1963 fiscal year actual figure includes $140,000 of nonrecurring aircraft repair costs and also, revenues were not applied against costs that year. The contract for operation of a DC–4 and two SA–16's is presently with Pan American World Airways, and is on a per mile basis. Increased coverage in trust territory will depend on construction of an airfield at Ponape in addition to completion of the Palau field. The gross cost of operations are estimated at $795,000 in 1964 and $750,000 in 1965, the higher costs in the current year being due to the purchase of parts for existing aircraft.

*Stevedoring and cargo handling, $———.*—Stevedoring and cargo handling costs for 1965 fiscal year are estimated at $200,000. Reimbursement received for this service is expected to offset the wages and services costs employed in the work. The principal costs involved in this work are wages of laborers and use of cargo handling equipment and motor vehicles.

*Communications, $275,000.*—This activity was budgeted under general government in fiscal year 1964 but has been shifted to this transportation and communications services category to better identify its functional nature. Headed by a director of communications, this activity has two basic functions, the operational aspect involving operations and administration of the district and headquarters communication stations and the repairs and equipment aspect titled the electronic maintenance depot. Operationally, there is a communications station in all districts except Saipan. During fiscal year 1964, the central control station at

Truk will be moved to communications headquarters at Saipan, and the communication operations for Saipan will be incorporated within the control station operation.

In fiscal year 1965, communications will be staffed by 12 U.S. personnel including the director, his secretary, a supervisory electronics technician, 2 supervisory radio operators, and 7 electronics and radio mechanics, plus 71 Micronesian employees, including 1 district communications officer for each district except the Mariana district.

The communication stations connect throughout the trust territory with vessels and aircrafts, and a radio teletype connection is maintained with Guam from headquarters in Saipan. In addition to official communications for the trust territory, this activity provides commercial telegram services on a revenue basis as well as all of the U.S. Weather Bureau communications requirements in the area. Navigational aids are monitored, weather information provided as required, and a watch maintained on the international distress frequency.

The net decrease of $29,000 is made possible in this activity by the consolidation of the Saipan communication station with the central control station and the nonrecurrent nature of $50,000 provided in the fiscal year 1964 budget for the transfer of the control station from Truk to Saipan.

*General government, $1,715,000*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase or decrease (−) |
|---|---|---|---|---|
| Personnel office | $54,807 | $50,000 | $63,400 | $13,400 |
| Property and supply | 300,979 | 210,000 | 221,800 | 11,800 |
| Budget, fiscal and audit | 212,530 | 163,200 | 178,600 | 15,400 |
| Administrative services | 249,811 | 70,000 | 79,400 | 9,400 |
| District administration | 352,513 | 728,000 | 782,300 | 54,300 |
| Personnel benefits | 204,054 | 300,000 | 250,000 | −50,000 |
| Guam liaison office | 136,976 | 70,000 | 75,800 | 5,800 |
| Transportation office | | 21,000 | 21,700 | 700 |
| Special projects unit | | 41,500 | 42,000 | 500 |
| Total | 1,511,670 | 1,653,700 | 1,715,000 | 61,300 |

*Personnel office, $63,400.*—This office administers a comprehensive personnel program for the trust territory, covering over 500 U.S. civil service employees plus nearly 3,000 Micronesian employees. With the inauguration of the accelerated elementary school program, an upsurge of employment involving over 200 U.S. elementary school teachers has considerably increased the volume of personnel processing in this division. The personnel office is headed by the personnel officer, who is assisted by the following U.S. employees: Assistant personnel officer, personnel assistant, administrative assistant, personnel clerk, and a secretary. In addition, four Micronesian clerks are employed. The increase of $13,400 provided for this activity will permit the filling of positions vacant in fiscal year 1964, provide for normal pay increments, a small increase in Micronesian staffing and allow approximately $2,000 for purchase of needed equipment and supplies.

*Property and supply, $221,800.*—This activity is responsible for the property and supply program for the trust territory, including procurement of all supplies and equipment, maintenance and operation of warehouses to store inventory stocks, and other related functions. A central supply depot is maintained at headquarters in Saipan, administering the stock fund inventory program with inventory valued at approximately $800,000 including medical stocks, spare parts, and general stores, as well as replenishment of packaged and bulk petroleum products stocked at the district levels. Also, this department administers the U.S. Department of Agriculture surplus commodity program for the trust territory. The accelerated construction program, launched in fiscal year 1963, has considerably stepped up the activities of this section.

In addition to the director of property and supply, there are 14 other U.S. employees, including an assistant director. Of these 14 additional, 2 general supply clerks (United States) are newly being added in fiscal year 1964 due to the unavoidable increases in the workload. There are presently 57 Micronesian employees in various categories, and this is being increased to 60 in fiscal year 1965. The $11,800 increase will partially defray the cost of these new positions with the balance of funding made available by projected economy in the procurement of equipment and supplies.

*Budget, fiscal and audit, $178,600.*—This activity performs the budgeting, accounting, collection, and disbursement functions for the trust territory. The accelerated program has considerably increased the workload in finance and budget to handle the necessary allotment and accounting controls, increased payrolls and vouchering and financial administration requirements. The office is headed by the comptroller who is assisted by a budget officer, a fiscal administrative officer, a chief accountant, a treasurer plus eight other American employees. Two additional employees are being newly hired in fiscal year 1965 due to the unavoidable increase in the workload.

The internal auditor, his American assistant, Micronesian staff, and operation requirements are also budgeted under this category. The internal audit program involves comprehensive review of local trading companies, cooperatives, and other activities, as well as audit of Government functions.

The increase of $15,400 will defray the cost of the two new fiscal U.S. employees, with other operational funding remaining at substantially the same level as fiscal year 1964.

*Administrative services, $79,400.*—This section performs various service type functions in support of all headquarters operations. The mail and files section handles all incoming and outgoing correspondence, primarily official government material. A stock of common-use office supplies are maintained and provided to all headquarters activities, and this section also operates the duplicating service. The administrative services office also operates the headquarters vehicle pool, performs duties in connection with the issuance of passports to Micronesian citizens, and operates a stenographer and typist pool.

Headed by the administrative services officer, this section also has a U.S. mail and files supervisor, a teletypist and 6 other clerical and secretarial U.S. employees as well as 12 Micronesian clerical and other employees.

The increase of $9,400 will defray the increased salary costs brought about by normal increments and promotions, and will provide a small amount for better stocking of common-use items for general headquarters usage as well as upgrading of duplication services, office supplies, and equipment.

*District administration, $782,300.*—Funds are provided here for the administration offices of the various districts, including the offices of the district administrators, the district finance offices, the district supply offices, personnel offices, and general administrative services offices. The district organization staffing varies from district to district but, generally speaking, consists of the following U.S. employees in each district: A district administrator, an assistant district administrator, an administrative officer, and/or an administrative assistant and district supply officer. All district finance offices are staffed by Micronesian district finance officers. In addition, U.S. secretaries and clerks are employed. The Micronesian staffing averages about 35 employees per district.

In addition to general administration over all district activities and logistics and support, the district administration offices administer general programs for economic, social, and political development in the districts, working closely with the local citizenry and congresses. This includes administration of the field trip program to cover areas away from the district center itself.

The increase of $54,300 in this category will primarily fund pay increments and promotions, with material and equipment purchasing and other administrative costs remaining substantially at the level of fiscal year 1964.

*Personnel benefits, $250,000.*—Funds are herein provided for defraying recruitment, termination, and vacation travel costs of employees, transporting of household effects, and other employee benefit programs, such as compensation insurance premium payments, safety program administrative and training costs, and the costs of the incentive awards program.

The decrease of $50,000 in this category as compared to fiscal year 1964 is made possible by increasing charges of benefits to end-use activities instead of generalized lump-sum budgeting in this category. Included in this apportionment to end-use activities will be education allowances, a greater part of the recruitment and termination costs, etc., thereby decreasing the requirement for funding in this category. However, the amount budgeted will not cover recruitment costs of teachers and will need to be supplemented by transfers from the elementary school program or distributed to those accounts.

*Guam Liaison Office, $75,800.*—Headed by the Guam liaison officer, this office provides liaison and other administrative services for the trust territory at

Guam, a still important crossroad for the entire trust territory area. Entrance and exit from the trust territory areas are still through Guam, both air and sea, since commercial carriers operate through Guam and not directly to the trust territory districts or headquarters at Saipan. Trust territory aircraft are maintained at Guam and fly out to the various districts and to headquarters from there. The Pacific Micronesian Line recently moved its administrative offices to Saipan from Guam, but connection with cargo vessels from the United States and from foreign ports are made in Guam. In addition to transportation and transient billeting, the liaison office serves as a vital link with Guam civil and military authorities, in local procurements of supplies and equipment for the trust territory (including purchases and other acquisitions from military sources), and various other administrative functions.

In addition to the liaison officer, seven other U.S. clerical, administrative, and maintenance personnel staff this office, as well as two Micronesians. The increase of $5,800 will primarily be needed to fund normal pay increments, with material and equipment purchasing remaining substantially at the same level.

*Transportation office, $21,700.*—This provides funds for the salary and other expenses of the transportation officer, who supervises and coordinates the surface transportation (vessels) program for the trust territory. Surface transportation service is provided by the Pacific Micronesian Lines, Inc., on a cost-plus-fixed-fee charter basis, utilizing trust territory vessels.

In addition to the salary of the transportation officer, funds are provided for his Micronesian clerk plus administrative expenses including funds for travel and per diem as well as supplies and equipment acquisitions.

The $700 increase will primarily fund salary increments.

*Special projects unit, $42,000.*—With the establishment of the accelerated program of development in the trust territory, initially in education, with long-range plans for eventual accelerated development in all areas, the High Commissioner has established a special office for the coordination, supervision and expediting of both construction and program areas. Included in this function would be coordination of the various trust territory organizations concerned, such as public works, finance, supply, personnel, etc., to obtain maximum efficiency in development, as well as liaison and administrative dealings with various outside contractors involved in the large-scale construction concerned.

Funds provided here are to defray the salary of the Special Assistant to the High Commissioner, the administrative officer of the special projects unit and an American secretary. Also funds for per diem and other travel expenses, as well as supplies and equipment are included. The increase of $500 will primarily defray pay increments.

*Supply stock revolving fund, $150,000*

The supply stock revolving fund was created at the start of fiscal year 1963 for the purpose of purchasing materials, supplies, tools, and equipment for all districts and for construction projects through one account and being reimbursed when these items were charged to the end-use activity. Main categories falling within this fund are general stores; medical supplies; equipment spart parts; petroleum, oil, and lubricants; manufactured gases; and cement. The fund was originally established through supplies taken over from the U.S. Navy at Saipan at the time the Mariana Islands district was transferred to the Department of Interior, as well as existing petroleum, oil, and lubricant inventories and other general stores inventories which had been in existence for several years. Through the liquidation of these inventories, the fund has been able to purchase additional items and has developed an inventory of approximately $800,000 as of June 30, 1963.

Because of the accelerated school construction and supply program, plus the increased activities in other areas of construction and in territorywide programing, the present fund is unable to finance the procurement of the supplies and materials required. Due to delays in purchasing, and to the length of the supply lines from the United States through Guam and Saipan, and eventually to the district centers, it is necessary that an inventory level of from 4 to 6 months be maintained of basic common use items.

The $150,000 requested will not bring the inventories up to a proper operating level, but will assist the director of property and supply by increasing certain categories. It is planned to expand in these areas:

| | |
|---|---|
| General stores (including construction materials), an additional | $50,000 |
| Medical supplies, an additional | 50,000 |
| Cement, an additional | 50,000 |

Inasmuch as this is a revolving fund, such surplus funds as might accrue in future years, after the objectives of the present trust territorywide programs have been realized and the capital expenditure program completed, could be transferred to regular program activities to assist in their financing.

*Construction program, $4,920,000*

The 1965 construction (capital improvement) program has been geared to sustain an expansion in certain areas of the operations and programs of the trust territory. Particular reference is made to the acceleration of the elementary and secondary school programs, with emphasis upon the construction of new elementary schools and high school plants, with a secondary emphasis being placed upon the expansion of medical services facilities in certain districts of the trust territory. Planning is also going forward in two other areas which are logistic n nature, where expanson must go forward in order to support the accelerated programs in the field of economic and social development. These areas include the rehabilitation and expansion of existing utility systems in certain district centers where there exist heavy concentrations of population; and the improvement and expansion of airfields, a necessity in order that proper support can be given to a growing population and to increased government activities in each of the six districts of the territory.

In the preparation of the budget estimates for 1965 provision has been made for the funding of all projects which were programed within the 1963–64 budget years and will be completed within fiscal year 1965.

In section 1, below, a comparison is made of the fiscal years 1963 and 1964 with the estimates for 1965 in the various categories of construction. It should be pointed out here that the funds authorized by the 1963 fiscal year supplemental appropriation, were not available until May 1963, and therefore, those budgeted for construction, including the elementary school construction program, could not be obligated prior to the close of fiscal year 1963; and consequently, funds totaling approximately $6,600,000 were carried over into fiscal year 1964.

For comparative purposes, therefore, throughout this section, unobligated 1963 supplemental construction funds will be indicated in those areas where they were programed for fiscal year 1964, separately from 1964 funds. Actual expenditures for fiscal year 1963, amounting to $905,904, are also broken down into their respective categories.

*1. Comparison of construction by categories (1963, 1964, 1965 fiscal years)*

| Type of construction | Actual, 1963 | 1963 programed in 1964 | Estimate, 1964 | Estimate, 1965 |
|---|---|---|---|---|
| (a) Educational facilities: | | | | |
| 1. Elementary school classrooms and facilities | $76,142 | $2,357,858 | $1,918,000 | $819,000 |
| 2. Secondary school plant and classrooms | 248,806 | 430,500 | 500,000 | 485,000 |
| Total, educational facilities | 324,948 | 2,788,358 | 2,418,000 | 1,304,000 |
| (b) Public health facilities: | | | | |
| 1. General hospitals | 83,388 | 330,000 | 150,000 | 888,000 |
| 2. Other facilities | | 40,000 | | |
| Total, public health facilities | 83,388 | 370,000 | 150,000 | 888,000 |
| (c) Economic, agriculture, and fisheries | 11,006 | 301,000 | 280,000 | |
| (d) Communications facilities | | | 100,000 | 110,000 |
| (e) Public buildings and housing: | | | | |
| 1. Administration and public buildings | 24,665 | 170,000 | 75,000 | |
| 2. Teacher housing, elementary | | 1,456,000 | 1,582,000 | 493,000 |
| 3. Teacher housing, secondary | | | | 510,000 |
| 4. Other housing | 96,121 | 381,000 | 200,000 | 480,000 |
| Total, public buildings and housing | 120,786 | 2,007,000 | 1,857,000 | 1,483,000 |
| (f) Transportation facilities: | | | | |
| 1. Airfields | 273,436 | 159,653 | 200,000 | 210,000 |
| 2. Docks and port facilities | 31,322 | 200,000 | | |
| 3. Ships and small boats | | 74,000 | 200,000 | |
| Total, transportation facilities | 304,758 | 433,653 | 400,000 | 210,000 |
| (g) Public works facilities: | | | | |
| 1. General facilities | 38,108 | 25,000 | | |
| 2. Roads | 2,585 | | 175,000 | 250,000 |
| 3. Construction equipment | | | 100,000 | 200,000 |
| Total, public works facilities | 40,693 | 25,000 | 275,000 | 450,000 |
| (h) Utilities: | | | | |
| 1. Power | 12,225 | 265,000 | 250,000 | 225,000 |
| 2. Water | | 230,000 | 170,000 | 150,000 |
| Total, utilities | 12,225 | 495,000 | 420,000 | 375,000 |
| (i) Grant-in-aid: | | | | |
| 1. Education grant-in-aid | 1,500 | 90,000 | | |
| 2. Municipal public works | 6,600 | 84,900 | 100,000 | 100,000 |
| Total, grant-in-aid | 8,100 | 174,900 | 100,000 | 100,000 |
| Total | 905,904 | 6,594,911 | 6,000,000 | 4,920,000 |

*2. Summary of construction by districts (1965 fiscal year)*

| Type of construction | Districts | | | | | | TT-wide | Total |
|---|---|---|---|---|---|---|---|---|
| | Marianas | Palau | Yap | Truk | Ponape | Marshalls | | |
| (a) Educational facilities: | | | | | | | | |
| 1. Elementary school classrooms | $31,500 | | | $367,500 | $220,500 | $199,500 | | $819,000 |
| 2. Secondary school plants, etc | 170,000 | $165,000 | 50,000 | 55,000 | 45,000 | | | 485,000 |
| Subtotal | 201,500 | 165,000 | 50,000 | 422,500 | 265,500 | 199,500 | | 1,304,000 |
| (b) Public health facilities: 1. General hospitals | | | | 888,000 | | | | 888,000 |
| (c) Economic, agriculture and fisheries | | | | | | | | |
| (d) Communications facilities | | 20,000 | 20,000 | | 20,000 | | $50,000 | 110,000 |
| (e) Public buildings and housing: | | | | | | | | |
| 1. Teacher housing, elementary | | | | 357,000 | | 136,000 | | 493,000 |
| 2. Teacher housing, secondary | 85,000 | 85,000 | 85,000 | 85,000 | 85,000 | 85,000 | | 510,000 |
| 3. Housing, other | 80,000 | 80,000 | 80,000 | 80,000 | 80,000 | 80,000 | | 480,000 |
| Subtotal | 165,000 | 165,000 | 165,000 | 522,000 | 165,000 | 301,000 | | 1,483,000 |
| (f) Transportation facilities: 1. Airfields | | 100,000 | | | 110,000 | | | 210,000 |
| (g) Public works facilities: | | | | | | | | |
| 1. Construction equipment | | | | | | | 200,000 | 200,000 |
| 2. Roads | | | | | | | 250,000 | 250,000 |
| Subtotal | | | | | | | 450,000 | 450,000 |
| (h) Utilities: | | | | | | | | |
| 1. Power | | 100,000 | | 50,000 | 75,000 | | | 225,000 |
| 2. Water | | 150,000 | | | | | | 150,000 |
| Subtotal | | 250,000 | | 50,000 | 75,000 | | | 375,000 |
| (i) Grant-in-aid: 1. Municipal public works | | | | | | | 100,000 | 100,000 |
| Total | 366,500 | 700,000 | 235,000 | 1,882,500 | 635,500 | 500,500 | 600,000 | 4,920,000 |

(*a*) *Educational facilities, $1,304,000*

1. *Elementary school classrooms and facilities, $819,000.*—This estimate applies to the third year of an accelerated elementary school construction program which is aimed at providing adequate classroom facilities and equipment for all elementary school age students in the trust territory. Two hundred and thirty-four classrooms were budgeted for in fiscal year 1963; 175 in fiscal year 1964; and 78 in 1965. The estimate for 1965 is based on a cost of $10,500 per classroom, which includes $7,100 for the building itself, and $3,400 for classroom furniture, fixtures, equipment, and supplies.

The program of elementary school construction is predicated upon an anticipated elementary public school enrollment of 20,400 by fiscal year 1968, and on the basis of 30 students per classroom. With full 4-year high schools to be in operation in fiscal year 1965, the ultimate objective is to revert to an 8-and-4 system, wherever feasible, with students who are normally attending intermediate schools of the seventh and eighth grades in the district centers, continuing to attend the municipal elementary schools which will be extended through the eighth grade. Elementary school classroom construction will be a continuing program through fiscal year 1966.

The new housing requirements for the additional elementary school teachers who will be recruited in fiscal year 1965 are covered in section (*c*) below: "Public buildings and housing."

2. *Secondary school classrooms and facilities, $485,000.*—In fiscal year 1965 full high schools will have been established in each of the six districts of the trust territory, and buildings scheduled for construction in this year are to provide facilities for an expanding secondary school enrollment. A portion of the $485,000 requested is to be used to complete construction on some buildings started in prior years. A breakdown on the estimate follows:

| | |
|---|---|
| Mariana Islands district: | |
| Industrial arts building at Hopwood High School | $85,000 |
| High school dining room and kitchen | 85,000 |
| Paulau district: | |
| Complete dining room scheduled for 1964 | 55,000 |
| Construction of 2 student dormitories at $55,000 | 110,000 |
| Yap district: Complete 7-building high school plant started in fiscal year 1963 | 50,000 |
| Truk district: Construct 1 boys' high school dormitory | 55,000 |
| Ponape district: Complete funding for new high school dormitory partially funded in fiscal year 1964 | 45,000 |

All of the above projects include the procurement of necessary school equipment, kitchen appliances, beds, desks, etc., and in the cases of the dormitories, provide for inside toilet facilities.

(*b*) *Public health facilities, $888,000*

1. *General hospitals, $888,000.*—In the long-range construction program for public health, provisions have been made for the construction of new 90-bed hospitals in the districts of Truk, Ponape, and Yap at an estimated cost, completely furnished, of approximately $1,058,000 each. These hospitals will be equipped for inpatient and outpatient treatments, surgery, obstetrics, X-ray, and laboratories. Facilities will also be available for the sanitation and dental offices, administrative offices, warehouses, feeding, and classrooms for training of hospital and field medical personnel.

During fiscal years 1963 and 1964 funds in the amount of $170,000 were budgeted for the first increment of the new 90-bed hospital at Truk. In fiscal year 1965 $888,000 is to be used for the completion of the hospital and equipment.

(*c*) *Economic, agriculture and fisheries development projects, $———*

During fiscal years 1963 and 1964, increased emphasis was placed on this important phase of the trust territory construction program to the point that funds totaling almost $600,000 were programed for this area. These included improvements to district agriculture stations, the addition of poultry breeding units and piggeries, construction of fisheries reefers, and boatbuilding facilities. Due to the extent of these programs, it was elected to program no new projects pending a study of the long-range economic development programs for the trust territory, and to insure completion of the present projects.

*(d) Communications facilities, $110,000*

During fiscal year 1964, the first increment of the construction of the new central communications station at Saipan was funded in the amount of $85,000. Required in 1965 is $50,000 to complete this project, which will include two new buildings, a new antenna farm, installation of a 100-kilowatt auxiliary generator and facilities to house it, more than a mile of special cable, and the addition of certain special equipment. In addition, new homer beacons will be required in the districts of Palau, Truk, and Ponape; $20,000 for each station, or a total of $60,000, has been estimated as the cost of constructing new housing, laying of cables from the main stations, and preparation of these facilities for the eventual transfer of transmitting equipment to these sites.

*(e) Public buildings and housing, $1,483,000*

1. *Housing for elementary school teachers, $493,000.*—As part of the third phase of the accelerated elementary school program throughout the trust territory, 29 additional new houses at an estimated cost of $17,000 each will be required in fiscal year 1965. Twenty-one of these houses will be located in the Truk district, and eight in the Marshalls, all on outlying islands.

2. *Housing for secondary school teachers, $510,000.*—Present plans call for nine U.S. high school teachers at each district high school as the 12th grade opens in fiscal year 1965, with the number of teachers increasing up to and including fiscal year 1968 as enrollment reaches the anticipated 3,700 figure. Thirty new houses—five in each district center—will be required to house the first group of new teachers at an estimated cost of $17,000 each.

3. *Permanent housing (other), $480,000.*—Plans call for the replacement, where possible, of wornout World War II quonsets which are costly to maintain. Present planning calls for concrete hollow-tile block buildings, completely furnished.

*(f) Transportation facilities, $210,000*

1. *Airfields, $210,000.*—Provision has been made for the completion of funding of the new airfield presently under construction on Babelthaup Island in the Palau district, and for the initial engineering work for the airstrip to be located at Ponape. With the construction of an airfield at Ponape, the last vital link will have been completed, and landing fields will then be available in each district of the trust territory, thereby permitting the use of DC–4 and larger land aircraft throughout the territory. Of the $210,000 estimated for 1965, $100,000 will be required to complete the Palau airstrip, and $110,000 to complete engineering services for the Ponape airstrip.

*(g) Public works facilities, $450,000*

1. *Construction equipment, $200,000.*—In fiscal year 1964, $100,000 was budgeted for the establishment of a permanent central equipment revolving fund for the purchase of new construction equipment. As equipment is purchased, it is amortized over its life expectancy through rental charges to the various construction projects, the revolving fund thereby being reimbursed for its original acquisition cost and for the maintenance and repair charges. Two hundred thousand dollars is required in fiscal year 1965 to increase the size of this fund, and to permit the procurement of vitally needed equipment for use in the growing construction program.

2. *Roads, $250,000.*—In fiscal year 1964, $175,000 was budgeted for the start of a long-range road improvement program for the trust territory for the rehabilitation of approximately 400 miles of roads and highways. While it is not expected that all of these will be completely rehabilitated, emphasis is being placed on those sections which play an important part in the economic and educational development of the various districts. Babelthaup Island, the largest island in the trust territory, located in the Palau district, and Ponape Island, require special attention in order to develop the resources of these areas. The estimated cost of road construction averages $10,000 per mile.

*(h) Utilities, $375,000*

1. *Power, $225,000.*—In fiscal year 1963, first increments were funded for the rehabilitation of power facilities in the districts of Palau, Truk, and Ponape. These are areas where population growth has necessitated both the rehabilitation of former installations and the addition of new equipment and distribution lines.

2. *Water, $150,000.*—First emphasis on the rehabilitation of a district water system has been placed in the Palau district and the island of Koror, the district center, where there exists a population of more than 4,000 people living in a con-

gested area. This project calls for the rehabilitation of a former Japanese dam located on Babelthaup, which was damaged during the recent war, and the construction of new lines across the channel to Koror; the addition of new storage facilities on Koror; and the replacement of water mains and secondary lines throughout the islands.

(*i*) *Grant-in-aid, $100,000*

These funds are required for a continuation of the grant-in-aid program for local congresses and municpalities to assist them in secondary road improvements, construction of municipal and legislative buildings, dock and harbor improvements, etc. In accordance with current policies, assistance is given up to 50 percent of the estimated cost of a project if it meets certain requirements and there is a justification for the project.

TRUST FUNDS

The following trust funds are administered by the trust territory government for the benefit of the Micronesians:

1. Copra stabilization fund.
2. Angaur mining trust fund.
3. Angaur scholarship fund.
4. Kili trust fund.
5. Ujelang trust fund.
6. Saipan trust fund.

There is no management charge by trust territory, and the funds are self-supporting as to capital and income. Therefore, no appropriation is required or requested.

The following financial statements show the status of each fund as of June 30, 1963.

*Copra stabilization fund balance sheet, June 30, 1963*

| | |
|---|---|
| Assets: | |
| Cash on deposit | $101,059.27 |
| Time deposit with bank | 450,000.00 |
| Total assets | 551,059.27 |
| Liabilities and net worth: Net worth | 551,059.27 |
| Analysis of changes in net worth: | |
| Net worth at July 1, 1962 | 495,955.17 |
| Additions to capital: Saipan copra stabilization fund incorporated into trust territory fund and capital transferred | 69,456.95 |
| Revenues: Interest on investments | 13,812.50 |
| Total | 579,224.62 |
| Less expenses: | |
| Price support settlements | 19,657.58 |
| Copra bags | 2,633.09 |
| Other charges | 5,874.68 |
| Total | 28,165.35 |
| Total net worth at June 30, 1963 | 551,059.27 |

*Angaur mining trust fund balance sheet, June 30, 1963*

| | |
|---|---|
| Assets: | |
| Cash on deposit | $24,890.98 |
| Investments (U.S. Government securities) | 1,164,878.26 |
| Total assets | 1,189,769.24 |
| Liabilities and net worth: | |
| Accounts payable | 900.00 |
| Net worth | 1,188,869.24 |
| Total liabilities and net worth | 1,189,769.24 |
| Analysis of changes in net worth: | |
| Balance at beginning of the year | 1,184,786.67 |
| Add: Interest on investments | 42,527.48 |
| Total | 1,227,314.15 |
| Less expenses: | |
| Commissions paid to trust company | 1,051.69 |
| Distribution to Angaur beneficiaries: 1962 fiscal year | 36,493.22 |
| Total expenditures during the year | 37,544.91 |
| Liabilities and net worth at June 30, 1963 | 1,189,769.24 |

*Angaur scholarship fund balance sheet, June 30, 1963*

| | |
|---|---|
| Assets: | |
| Cash on deposit | $4,379.34 |
| Loans receivable | 8,248.05 |
| Total assets | 12,627.39 |
| Liabilities and net worth: Liabilities and net worth at end of year | 12,627.39 |

*Kili trust fund balance sheet*

| | |
|---|---|
| Assets: | |
| Cash on deposit | $13.23 |
| Investments, U.S. Treasury 3¼-percent bonds | 299,986.77 |
| Total assets | 300,000.00 |
| Capital: | |
| Trust as established | 300,000.00 |
| Income received from June 1957 to June 30, 1963 (6½ years x $9,945 per year) | 64,642.50 |
| Less distributions | 64,642.50 |
| Subtotal | |
| Total capital | 300,000.00 |

*Ujelang trust fund, balance sheet, June 30, 1963*

| | |
|---|---|
| Assets: | |
| Cash on deposit | $6.62 |
| Investments, U.S. Treasury 3¼-percent bonds | 149,993.38 |
| Total assets | 150,000.00 |
| Capital: | |
| Trust as established | 150,000.00 |
| Income received from June 1957 to June 1963 (6½ years times $4,972.50 per year) | 32,321.25 |
| Less distribution | 32,321.25 |
| Subtotal | |
| Total capital | 150,000.00 |

### SAIPAN TRUST FUND

This fund was established in 1956 by order of the commander in chief, U.S. Pacific Fleet, as High Commissioner of the Saipan district with $984,183 received by the Trust Territory of the Pacific Islands as compensation for land use and occupancy agreements from the U.S. Government. The use of this fund was exclusively reserved for programs and projects designed to serve and enhance indigenous inhabitants of the Saipan district. On July 1, 1962, administration of Saipan district was transferred to the Department of the Interior from the Department of the Navy. As of that date the assets of the Saipan trust fund were turned over to the High Commissioner, as trustee. These assets were all in cash and amounted to $376,014.20.

Under jurisdiction of the Navy Department a new hospital was funded from this fund. This hospital was completed in September 1962. A scholarship program was also initiated by the Navy administration. The amounts spent on each of these programs prior to June 30, 1962, were $590,000 and $18,000, respectively. Since July 1, 1962, the only moneys spent have been to complete the hospital and continue a scholarship program in Honolulu that was started by the Navy. The balance sheet shown on the next page reflects an increase of $13,441.21 since July 1, 1962.

*Saipan trust fund balance sheet, June 30, 1963*

| | |
|---|---|
| Assets: | |
| Cash on deposit | $14,455.41 |
| Time deposit with bank | 375,000.00 |
| Total assets | 389,455.41 |
| Liabilities and net worth: Net worth | 389,455.41 |
| Analysis of changes in net worth: | |
| Net worth at July 1, 1962 | 376,014.20 |
| Add revenues: Interest on investments of time deposit | 35,415.00 |
| Total | 411,429.20 |
| Less expenses: | |
| Cost for sending scholarship students to Hawaii | 10,243.13 |
| Additional expense incurred on Dr. Torres Hospital | 11,730.66 |
| Total | 21,973.79 |
| Total net worth at June 30, 1963 | 389,455.41 |

### LAND USE AND OCCUPANCY FUNDS, JUNE 30, 1963

In June of 1956, the Navy Department transferred $1,245,323.80 to the trust territory government to pay for land used during World War II by military services, and for land retained by the military services for possible future use. The status of this fund as of June 30, 1963, follows:

| Explanation | Detail | Balance |
|---|---|---|
| Cash transferred from Navy | | $1,245,323.80 |
| Interest earned on cash balance deposited with bank | | 35,940.70 |
| Total amount available | | 1,281,264.50 |
| Payments for land use: | | |
| Eniwetok (Dec. 17, 1956) | [1] $175,000.00 | |
| Bikini (Dec. 17, 1956) | [1] 325,000.00 | |
| Truk (Apr. 10, 1957) | 23,787.09 | |
| Ulithi (Feb. 8, 1960) | 19,839.28 | |
| Roi-Namur (Apr. 13, 1961) | 80,000.00 | 623,626.37 |
| Cash balance at June 30, 1960 | | 657,638.13 |

[1] Trust funds established by investing in U.S. Government bonds paying 3¼ percent interest. Interest collections are made semiannually and remitted to beneficiaries.

*Supply stock fund balance sheet, June 30, 1963*

| | |
|---|---|
| Assets: | |
| Cash on deposit | $491,638.90 |
| Accounts receivable | 126,324.18 |
| Inventories | 825,550.91 |
| Total assets | 1,443,513.99 |
| Liabilities and capital: | |
| Accounts payable | 130,080.84 |
| Advance payment credits | 24,992.94 |
| Capital | 1,288,440.21 |
| Total liabilities and capital | 1,443,513.99 |
| Sales to activities during 1963 fiscal year | 1,635,371.54 |
| Purchases during 1963 fiscal year | 953,866.65 |

This fund will be continued during 1964 and 1965 fiscal years. By purchasing in large quantities through a central fund, materials and supplies will be on hand when required, and significant savings made over buying in small lots.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $14,999,876 | $15,000,000 | $17,500,000 | +$2,500,000 |
| Unobligated balance lapsing | 124 | | | |
| Appropriation | 15,000,000 | 15,000,000 | 17,500,000 | +2,500,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 147,000 | 169,000 | 195,000 | +26,000 |
| 12 Personnel benefits | 7,945 | 9,000 | 12,000 | +3,000 |
| 21 Travel and transportation of persons | 20,472 | 13,500 | 37,000 | +23,500 |
| 22 Transportation of things | 34 | | 7,000 | +7,000 |
| 25 Other services | 176 | | | |
| 26 Supplies and materials | 2,318 | 2,500 | 6,000 | +3,500 |
| 31 Equipment | 931 | 1,000 | 3,000 | +2,000 |
| 41 Grants, subsidies, and contributions | 14,821,000 | 14,805,000 | 17,240,000 | +2,435,000 |
| Total obligations | 14,999,876 | 15,000,000 | 17,500,000 | +2,500,000 |

## Trust Territory of the Pacific Islands

## STATEMENT OF M. W. GODING, HIGH COMMISSIONER OF THE TRUST TERRITORY OF THE PACIFIC ISLANDS

### 1965 Budget Request

Mr. Goding. Mr. Chairman, this is a real pleasure for me, my first opportunity to appear before the Senate Appropriations Subcommittee, and I want to express particularly our appreciation for the very fine consideration you have given our budget for the last 2 fiscal years.

Our programs have been greatly strengthened, accelerated, by the budgets that had been made available for 1963 and 1964.

I have a brief prepared statement.

Chairman Hayden. You can include that in the record if you desire.

(The statement referred to follows:)

STATEMENT OF M. W. GODING, HIGH COMMISSIONER OF THE TRUST TERRITORY OF THE PACIFIC ISLANDS

Mr. Chairman and members of the committee, it is a privilege to appear before this committee to present our operating and capital improvements budget for fiscal year 1965. We appreciate your sympathetic consideration and understanding of our objectives, responsibilities, problems, and fund requirements which were instrumental in getting our long-range capital improvement program underway beginning with the 1963 fiscal year. The appropriation request for 1965 fiscal is $17,500,000, of which $12,580,000 is for the various operating programs and $4,920,000 is for capital improvements. This budget is an increase of $2,500,000 over the amount appropriated for 1964 fiscal year, largely for the "Education and medical services" programs. This increase provides for additional operating and capital improvement expenditures which will be required for a continuance of the long-range educational, medical, and economic development programs for the trust territory. There is an overall increase of $3,580,000 in the programs estimate and a decrease of $1,080,000 in the capital improvement program. As the new program for the trust territory proceeds, the capital improvement sector will decrease and the operating costs increase as we make use of the new and improved facilities.

During 1964 fiscal year to date, considerable progress has been made in implementing the long-range capital improvement program for the territory. Although results thus far have not been what we might have hoped for because of delays in the funding, we have made much progress and the rate of our construction will accelerate greatly during the months ahead.

Our long-range program for improvement of educational facilities in the trust territory include the construction of 487 classrooms and 246 teacher houses by the end of 1965 fiscal year. By September 1 of this year we estimate that 237 classrooms and 161 teacher houses will be ready for occupancy and use. The initial phase of the capital improvement program for education will have been completed by the end of 1965 fiscal year, with replacement and new construction for expansion only being required thereafter. The program for use of these improved facilities is to upgrade the teaching standards by hire of U.S. teachers and purchase of modern equipment and supplies for use of the students. A total of $3,900,000 is requested in our 1965 fiscal year estimate for this education operating expense, which is an increase of $2,125,000 over 1964 fiscal year. As of this date we have employed 102 U.S. teachers for assignment in the elementary and high schools. By the end of 1965 fiscal year we hope to have 38 new U.S. teachers in our employ. The objective of this program, for which funds were substantially increased beginning with 1963 fiscal year, is to provide a level of education which will better enable the people of the territory to advance the educational, political, and economic standards, as well as fulfill the obligations which we have assumed for this area. We assure you that we are trying to set up our capital improvements and operations budgets in such a fashion that one will not outstrip the other.

In the area of "Medical services" we are requesting $888,000 for capital improvements; an increase of $738,000 over 1964 fiscal year, all of which will be used for completion of a general hospital in Truk district. For operation of our medical services the 1965 fiscal year figure is $2,120,000; an increase of $770,000 over 1964 fiscal year. This increase will allow for expansion and improvement of all medical services, but the principal emphasis and increase is in the hospital and field medical budgets. During 1964 fiscal year a territorywide immunization program was started, and recruitment of fully qualified physicians has been carried out to provide strengthened medical services for each district. These programs will be continued in 1965 fiscal year. Also, $60,000 is requested as a contingency to cover the cost of unforeseen epidemics, such as the 1963 fiscal year polio epidemic in the Marshalls.

As we proceed with our capital improvement program, emphasis will shift from the educational program, as classrooms and facilities are completed, to construction of aditionally required medical facilities in the other islands, transportation, equipment, public utilities, communications, and public road construction.

Although primary emphasis at present is on the educational and medical services programs, we are not neglecting other vital areas.

In the area of resources management we are requesting an increase of $165,800 over the $1,119,200 appropriated for 1964 fiscal year. This increase will permit continuation of the current programs plus assistance to local fishing industries and an addition of $100,000 to the Economic Development Loan Fund. During

1964 fiscal year a boatbuilding project was started in Palau and a U.S. commercial fisheries concern was also established in the same district.

A tremendous problem still exists in the fields of communications and transportation. Faced, as we are, by an immense area estimated at 3 million square miles, facilities for communicating with the various populated islands must be improved. During 1964 fiscal year we added one 3,500-ton ship to our fleet by transfer from the Bureau of Indian Affairs. The airfield at Yap has been completed and has been in full use for the past year. Construction of the Palau airfield will be completed during 1965 fiscal year. A preliminary survey for location of the Ponape field had been made and funds in the amount of $210,000 are being requested for engineering there, and to complete the Palau airstrip.

These improvements in our transportation system, both by sea and air, are necessary for the economic development of the area. Completion of airfields in all districts will enable us to better utilize the DC–4 aircraft which was acquired in 1962 and possibly allow us to profitably use another aircraft of comparable size and range.

We recognize the need to improve our radio communications system and our long-range program provides for this, but with emphasis presently on the education and medical services programs, the additional funds for communications improvements are not presently available.

Another weak link in our transportation and communications system is the lack of a good public road system. We are budgeting $250,000 for this purpose in 1965 fiscal year, an increase of $75,000 over 1964 fiscal year. Improvements in our transportation and communications systems are essential to the full development of the economic potential of the trust territory. Although we have dwelt largely with the capital improvements and program areas of the trust territory, we are not unmindful of the fact that as facilities are increased, greater administrative responsibilities will fall upon us, and with this responsibility the necessity to eliminate waste and improve the efficiency of methods for the accomplishment of our goals. We believe the continued support of this budgeted program will permit an orderly advance toward meeting our responsibilities to the people of the trust territory, and the full and effective advancement of the area politically and economically.

### Educational Program

Mr. Goding. That treats in general the details of our submission as we have it before you. Our appropriations request for 1965 involves an increase of $2½ million from the level of $15 million available in 1964.

Our 1963 request totaled $15 million including a supplemental appropriation which became available last May and which has kept us very busy in the past 6 or 7 months.

The acceleration of our program has been oriented around education, our elementary schools and our secondary schools, practically every aspect of our educational program. Beginning in June, we initiated the first general school construction program involving a total of 240 classrooms. We have, as of now, 7 months later, completed about 50. We have the rest, or almost all of the rest, of the 240 in various stages of construction.

Along with the classrooms, we have had to build houses. We have had to build houses in every district throughout this area, which is approximately that of the 48 contiguous United States, some 3 million square miles. We are building houses. This week, we are finishing the first increment of 75 houses for American teachers.

### American Teacher in Schools

The American teacher in our elementary schools is a complete innovation. This year marks the first year in which we have had other than our own Micronesian teachers. We began recruitment in

June and we are very fortunate in securing some 60 teachers, elementary teachers, for the beginning of the school year in September. We have been equally fortunate in that the caliber of the teachers that we were fortunate enough to get on board, in the short time that we had, has been very high, and, almost without exception, they have been very good representatives of the American public school system.

### Fleet Operations

Obviously, in any program in our area with the long logistic lines, we have our difficulties in getting new construction in place at any given time. During the past year, we added another vessel to our fleet. We have doubled the frequency of service to the six district centers. The service involves the onward carriage of goods from Guam, which is the transshipment port for 90 percent of our supplies, equipment, and so on, and also involves a connection to Japan, carrying copra to Japan and certain merchandise and trade goods back from Japanese ports.

We operate a fleet of eight vessels: One tanker, five station vessels, two small ocean freighters, that carry on our logistic service. We have to maintain our own air service with three airplanes maintaining a basic weekly schedule between our headquarters and the six districts in the trust territory. This is approximately a transcontinental air service, if you take the length of the route mileage that is involved into consideration.

### Kwajalein Island Land Claim

The Chairman. What is the status of the land claim on Kwajalein Island? As I recall, this is the only island on which there has been no settlement.

Mr. Goding. We, Mr. Chairman, were finally successful, 2 weeks ago, in effecting the settlement for the Kwajalein Island claims. I believe you recall that we submitted a settlement agreement, a tentative settlement agreement, to you and the other committees concerned, a few months ago. And the settlement has been consummated.

Chairman Hayden. At what cost?

Mr. Goding. At a cost of $750,000 for the 750 acres that were stipulated in the settlement agreement.

### Educational Program Progress

Chairman Hayden. What progress are you making, and do you plan to make, in fiscal year 1965, with your educational program? I believe that you should provide the committee information in some detail as to the operations of the schools, their adequacy, and the construction plans which will provide better and more adequate plants.

Mr. Goding. Our construction program is moving now so that we hope by the fall of this year, we will have two-thirds of the total program completed in classroom units.

Chairman Hayden. Any questions?

HEADQUARTERS LOCATION AND CENSUS OF POPULATION

Senator BIBLE. I don't want to prolong this, Mr. Chairman, but it would be helpful if you have a map available that would indicate exactly where your headquarters and your six districts are, and how many people you have under your jurisdiction as Commissioner of the trust territory.

Mr. GODING. We have a total of about 85,000 people in the six districts.

Senator BIBLE. Where are your headquarters, Mr. Goding?

Mr. GODING. They are now on Saipan, in the Mariana Islands. There are about 10,000 people in the Marianas, about 10,000 in the Palau district, about 6,000 in the Yap district; 23,000 in the Truk district; 18,000 in the Ponape district; and 18,000 now in the Marshall Islands district. The distance is about 2,600 miles from Palau to the Marshall Islands, east to west.

Senator BIBLE. I have no other questions, Mr. Chairman.

I think the map is helpful in bringing this problem to force.

Senator BARTLETT. Just one or two questions.

CHANGE OF HEADQUARTERS LOCATION

You mentioned your headquarters as being at Saipan. When the United States took over the responsibility for governing the islands, the headquarters were at Honolulu for some time, were they not?

Mr. GODING. They were headquartered at Honolulu; the operating headquarters were actually at Guam. The Commander in Chief of the Pacific was at Honolulu.

Senator BARTLETT. After it went to Guam?

Mr. GODING. Prior to that, it had been moved to Honolulu from Guam.

Senator BARTLETT. To Honululu?

Mr. GODING. They were moved to Honolulu from Guam, and they moved back to Guam in 1954.

Senator BARTLETT. And you moved from Guam to Saipan?

Mr. GODING. We moved from Guam to Saipan in 1962.

Senator BARTLETT. When?

Mr. GODING. July 1, 1962.

PRESERVING CULTURE OF THE ISLANDS

Senator BARTLETT. Now, I want to ask the question, Mr. Commissioner, that Senator Mansfield put to Governor Lee: Is it your purpose to try to save, insofar as possible, compatible with your other responsibilities, some of the culture of these people who have been on these islands for so long?

Mr. GODING. It would be our policy to preserve it and at the same time not to interfere with their desire to accept western ideas and language and so on. Our problem is one in which, in many respects, the people desire to move further than they have up to the present time.

Senator BARTLETT. But they haven't been able to?

Mr. GODING. They haven't been able to, and in some instances, haven't desired to.

Senator BARTLETT. And you are, as fast as you can, making it possible for them to do this?

Mr. GODING. We are making it possible for them to exercise their own choice as to speed of acceptance of western culture and ideas.

TRUST TERRITORY ADMINISTERED UNDER TREATY

Senator BARTLETT. Mr. Goding, as I understand it, and I wish you would clarify it for my benefit, the situation with respect to Guam and American Samoa, both unincorporated territories of the United States, is entirely different from that prevailing in the trust territory; is this correct?

Mr. GODING. That is correct. The trust territory is an area that we administer under a treaty with the United Nations, the trusteeship agreement, it is called, entered into in 1947 between the United States and the United Nations. Under this agreement, we took over, in effect, what had been the Japanese mandate to the same area which was created following World War I.

Senator BARTLETT. And the administration of the trust territory is under the constant scrutiny of the United Nations?

Mr. GODING. It is under the scrutiny of the Trusteeship Council, which reports to the Security Council. This area is under a security trust.

UNITED NATIONS DELEGATES VISITS TO TRUST TERRITORY

Senator BARTLETT. Do delegations from the United Nations ever visit the trust territory?

Mr. GODING. They visit on a 3-year cycle. In fact, there is a visiting mission in the trust territory at the present time.

Senator BARTLETT. Let me ask you this question: Do the Communist members of the United Nations send delegates as members of the visiting delegation?

Mr. GODING. So far, there has not been a member of the Soviet or the Communist bloc on the visiting missions. Now the Soviet Union is a member of the Trusteeship Council and certainly enters into the questioning of the annual review that we make before the Trusteeship Council.

PROGRESS IN THE TRUST TERRITORIES

Senator BARTLETT. Mr. Chairman, I have no further questions, but I would like to say this: That recently I have had the pleasure of talking with members of a House committee who went over to the trust territory, and they were very laudatory, to me, of the work being performed by High Commissioner Goding in that great big area over there. And they told me—those who had been there previously—of really remarkable progress which had been made. And this was especially gratifying to me on a personal basis, although I was not surprised, because Mr. Goding started from Skagway, Alaska, and I knew he would do a good job there.

Thank you.

JAPANESE COMMERCIAL INTERESTS

Chairman HAYDEN. Do any other Senators have questions?

If not, just one question of my own.

When these islands were occupied by the Japanese, they made a monopoly of all the businesses, of course. What commercial relations do they have now?

Mr. GODING. The Japanese have had, and have for years, continued to sell quite a considerable quantity of types of trade goods, certain food products, certain clothing products; more recently, a considerable number of motor scooters, bicycles, and things of that type. A lot of the textile products, a lot of the prepared and canned food products are of Japanese origin.

Chairman HAYDEN. They have equal opportunity with everyone else?

Mr. GODING. They have, and under our trusteeship agreement, we have to allow it.

POPULATION OF ATOLLS AND ISLANDS

Senator MUNDT. I note 97 inhabited atolls and separate islands and a total population in the area of 84,777. What would be a minimal population? Looking on your map, they don't list them when they get below 10,000. I gather there are some.

Mr. GODING. We have some that have fewer than 25 people. There are not very many, but a few scattered outer islands would have a population of less than 50.

Senator MUNDT. As a permanent home, you mean?

Mr. GODING. That is right. And some of these situations, of course, involve considerable expense for our field trip service.

Senator MUNDT. How many islands or atolls would you say have a total population of less than 300 people?

Mr. GODING. I would say probably less than 30. The Marshall Islands have 22 inhabited atolls altogether.

Senator MUNDT. Do you have a map in more detail that shows the names of all the islands and atolls with the populations?

Mr. GODING. I am not sure with the population figures.

Senator MUNDT. You must have it in your records?

Mr. GODING. We have it; yes, sir.

Senator MUNDT. Will you supply, not a list but a map of all the islands and atolls with the populations?

Mr. GODING. Yes, sir.

Senator MUNDT. Thank you.

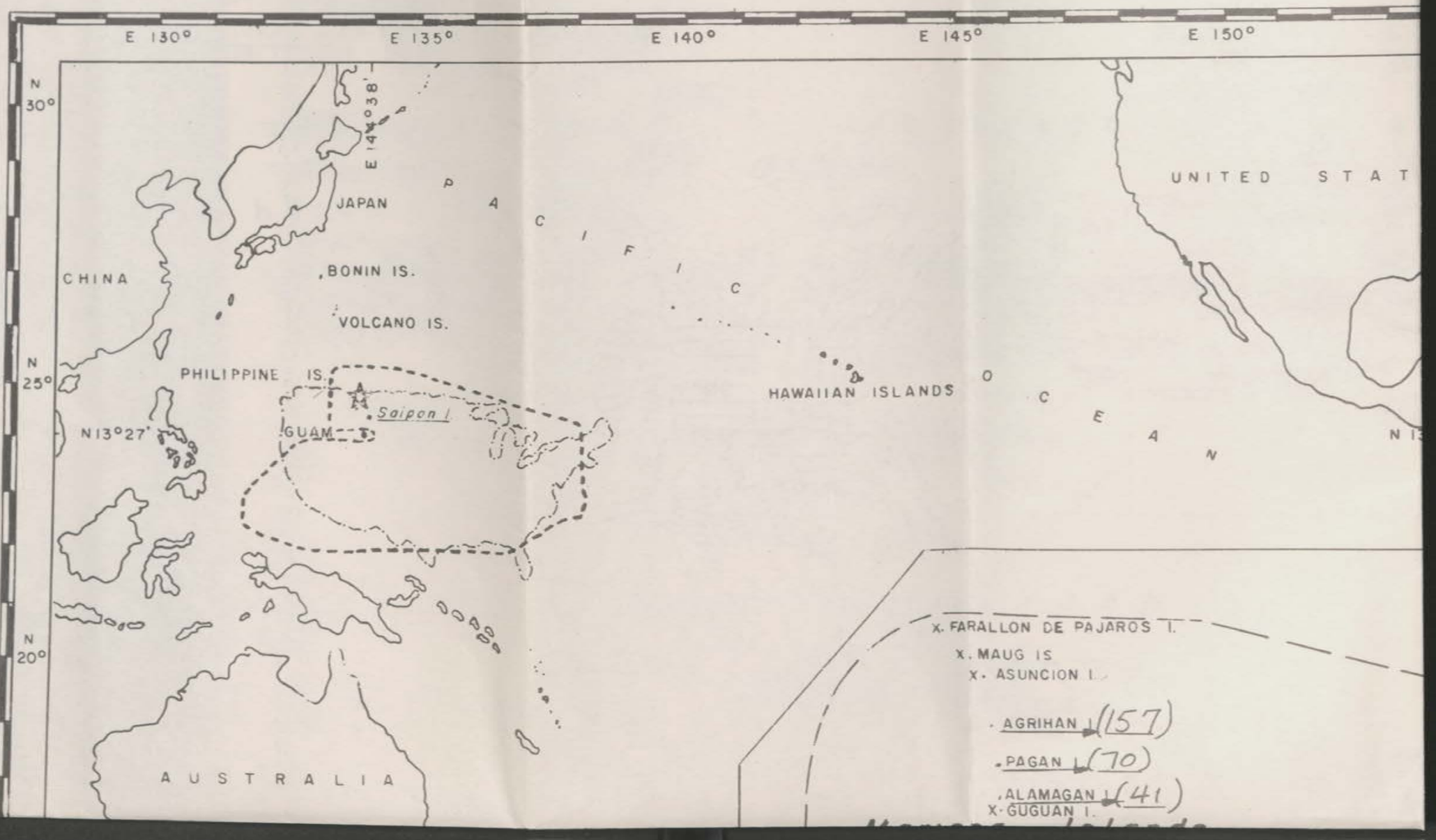
(The map referred to faces this page.)

(The information referred to follows:)

*Principal atolls and islands of the trust territory and population*

[District centers in italic]

| | Population |
|---|---|
| I. Mariana district: | |
| 1. Saipan Island | 8,151 |
| 2. Tinian Island | 486 |
| 3. Rota Island | 1,080 |
| 4. Agrihan Island | 157 |
| 5. Pagan Island | 70 |
| 6. Alamagan Island | 41 |
| 7. Sariguan Island | 31 |
| 8. Anatahan Island | 46 |
| Total, Marianas | 10,062 |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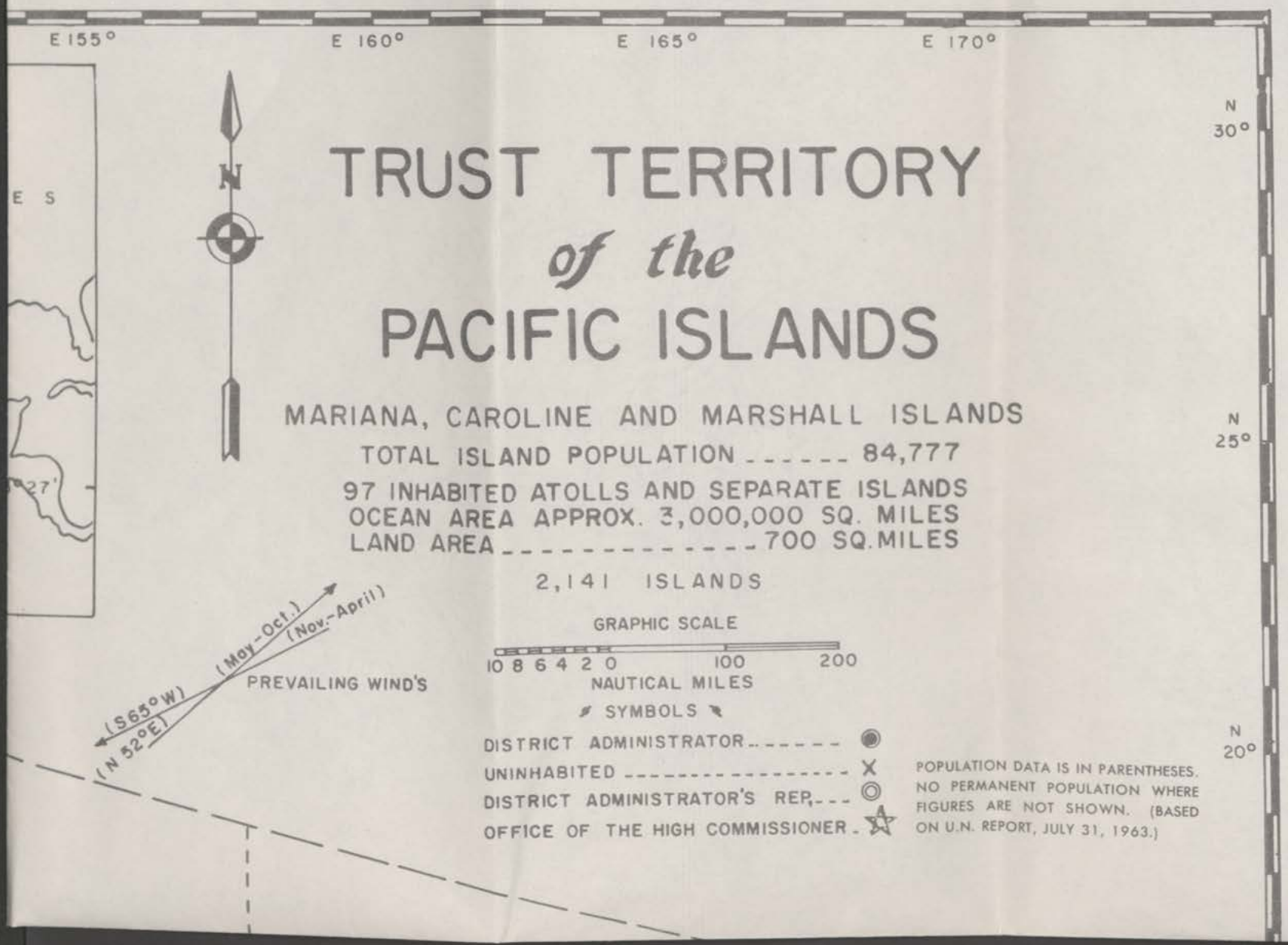
E 140°
E 145°
E 150°
N 30°
N 25°
N 20°
E 144°38'
N 13°27'
JAPAN
CHINA
BONIN IS.
VOLCANO IS.
PHILIPPINE IS.
Saipan I
GUAM
HAWAIIAN ISLANDS
AUSTRALIA
UNITED STAT
N 13
x. FARALLON DE PAJAROS I.
x. MAUG IS
x. ASUNCION I.
AGRIHAN I (157)
PAGAN I (70)
ALAMAGAN I (41)
x. GUGUAN I.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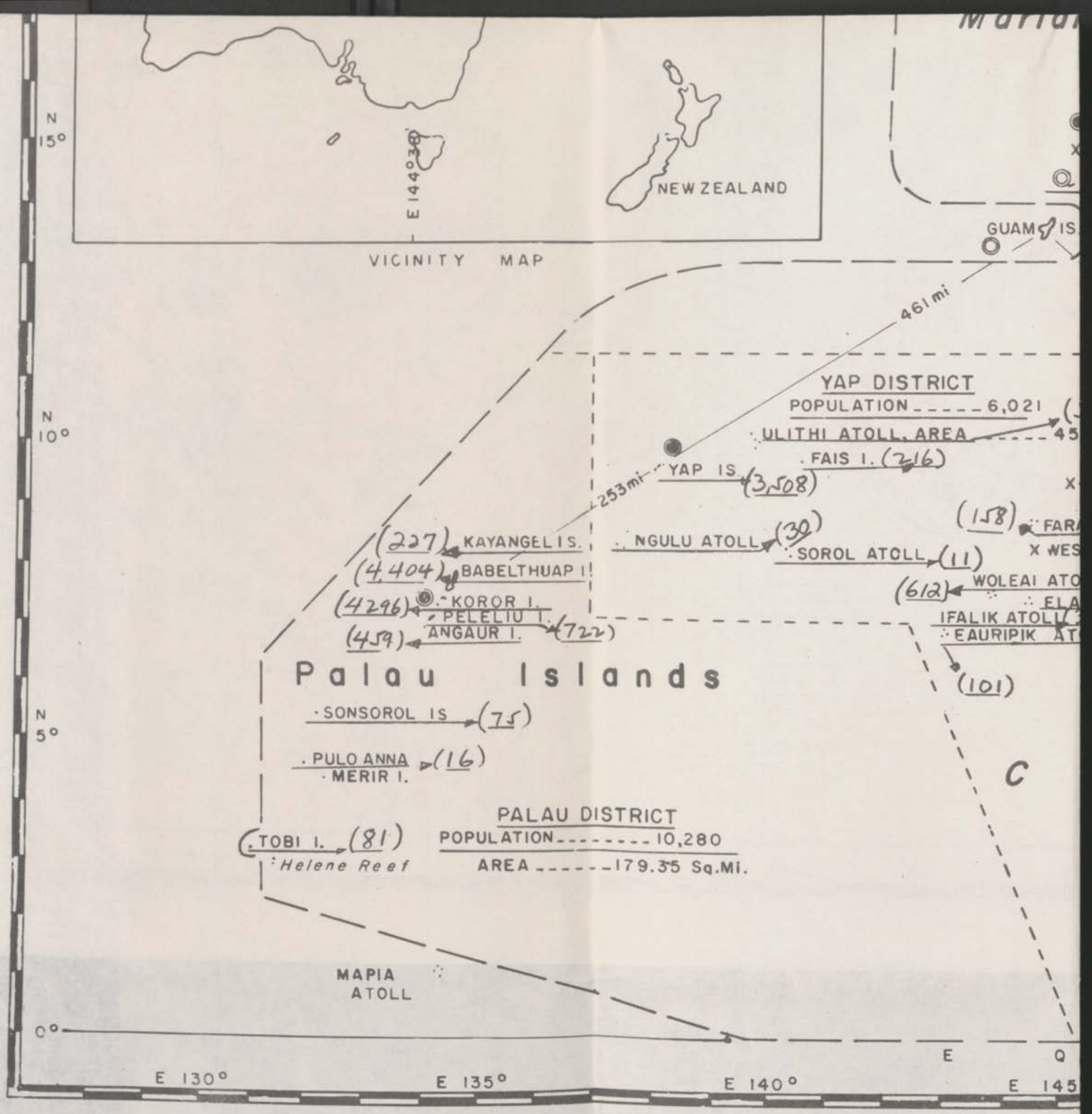
TRUST TERRITORY
of the
PACIFIC ISLANDS
MARIANA, CAROLINE AND MARSHALL ISLANDS
TOTAL ISLAND POPULATION ------ 84,777
97 INHABITED ATOLLS AND SEPARATE ISLANDS
OCEAN AREA APPROX. 3,000,000 SQ. MILES
LAND AREA ---------- 700 SQ. MILES
2,141 ISLANDS
GRAPHIC SCALE
10 8 6 4 2 0 100 200
NAUTICAL MILES
(May-Oct.)
(Nov.-April)
PREVAILING WIND'S
(S65°W)
(N 52°E)
SYMBOLS
DISTRICT ADMINISTRATOR ------
UNINHABITED ----------
DISTRICT ADMINISTRATOR'S REP. ---
OFFICE OF THE HIGH COMMISSIONER -
POPULATION DATA IS IN PARENTHESES. NO PERMANENT POPULATION WHERE FIGURES ARE NOT SHOWN. (BASED ON U.N. REPORT, JULY 31, 1963.)

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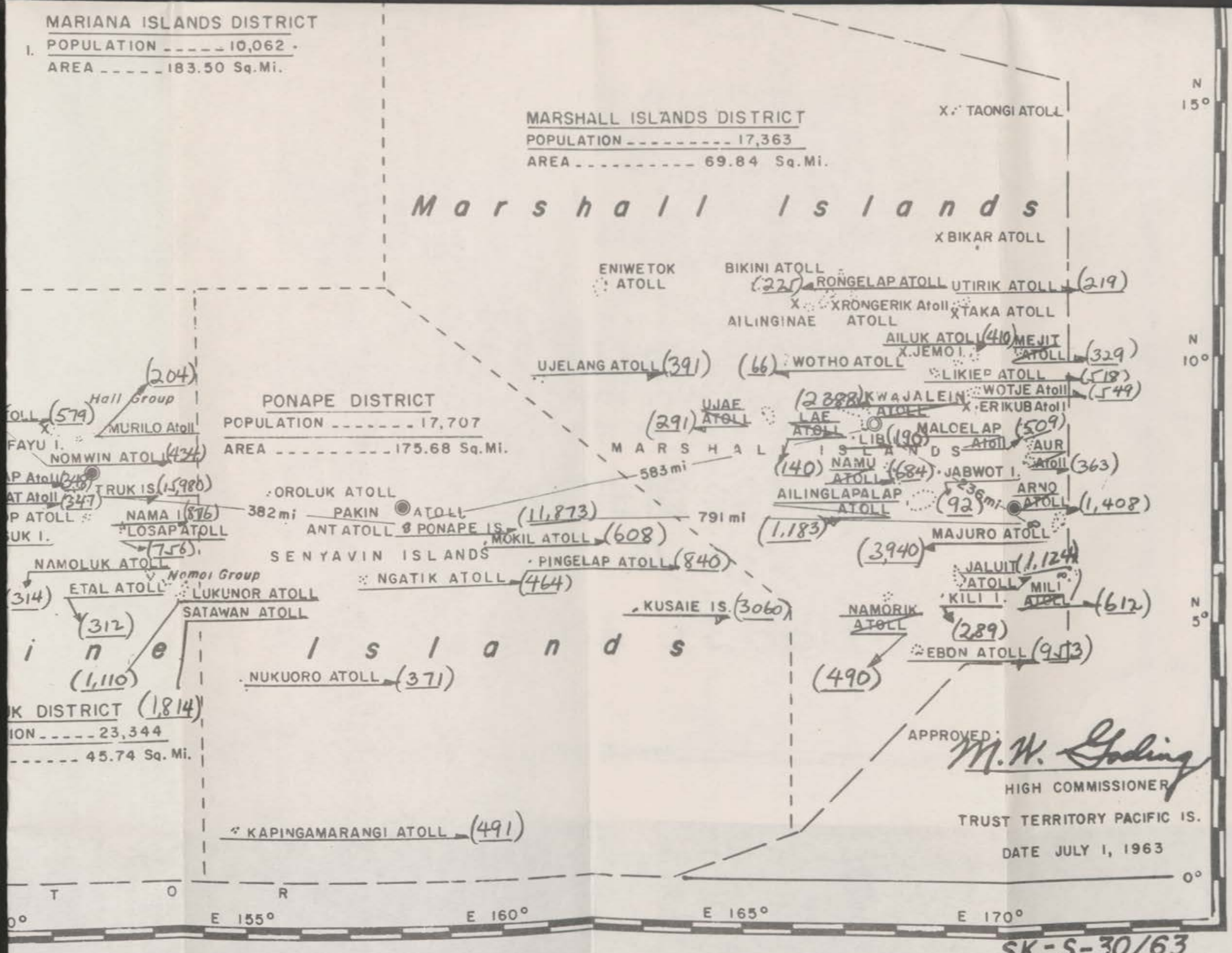
MARIANA ISLANDS DISTRICT
I. POPULATION ----- 10,062
AREA ----- 183.50 Sq.Mi.
MARSHALL ISLANDS DISTRICT
POPULATION ----- 17,363
AREA ----- 69.84 Sq.Mi.
Marshall Islands
PONAPE DISTRICT
POPULATION ----- 17,707
AREA ----- 175.68 Sq.Mi.
M A R S H A L L I S L A N D S
S E N Y A V I N I S L A N D S
i n e l s l a n d s
K DISTRICT (1,814)
ION ----- 23,344
----- 45.74 Sq. Mi.
TAONGI ATOLL
BIKAR ATOLL
ENIWETOK ATOLL
BIKINI ATOLL (225)
RONGELAP ATOLL
UTIRIK ATOLL (219)
AILINGINAE
XRONGERIK Atoll
TAKA ATOLL
AILUK ATOLL (410)
MEJIT ATOLL (329)
X JEMO I.
UJELANG ATOLL (391)
(66) WOTHO ATOLL
LIKIEP ATOLL (518)
WOTJE Atoll (549)
ERIKUB Atoll
(2,888) KWAJALEIN ATOLL
UJAE ATOLL (291)
LAE ATOLL
LIB (190)
MALOELAP Atoll (509)
AUR Atoll (363)
(140) NAMU ATOLL (84)
JABWOT I.
AILINGLAPALAP ATOLL
(92)
ARNO ATOLL (1,408)
(1,183)
MAJURO ATOLL
(3,940)
JALUIT ATOLL (1,124)
MILI ATOLL (612)
KILI I.
(289)
NAMORIK ATOLL
(490)
EBON ATOLL (953)
583 mi
382 mi
791 mi
236 mi
PAKIN ATOLL
ANT ATOLL
PONAPE IS.
(11,873)
OROLUK ATOLL
MOKIL ATOLL (608)
PINGELAP ATOLL (840)
NGATIK ATOLL (464)
KUSAIE IS. (3060)
(204)
Hall Group
(579)
MURILO Atoll
FAYU I.
NOMWIN ATOL (434)
AP Atoll (248)
AT Atoll (347)
TRUK IS (15,980)
NAMA I (876)
LOSAP ATOLL (756)
NAMOLUK ATOLL
(314)
ETAL ATOLL
(312)
Nomoi Group
LUKUNOR ATOLL
SATAWAN ATOLL
(1,110)
NUKUORO ATOLL (371)
KAPINGAMARANGI ATOLL (491)
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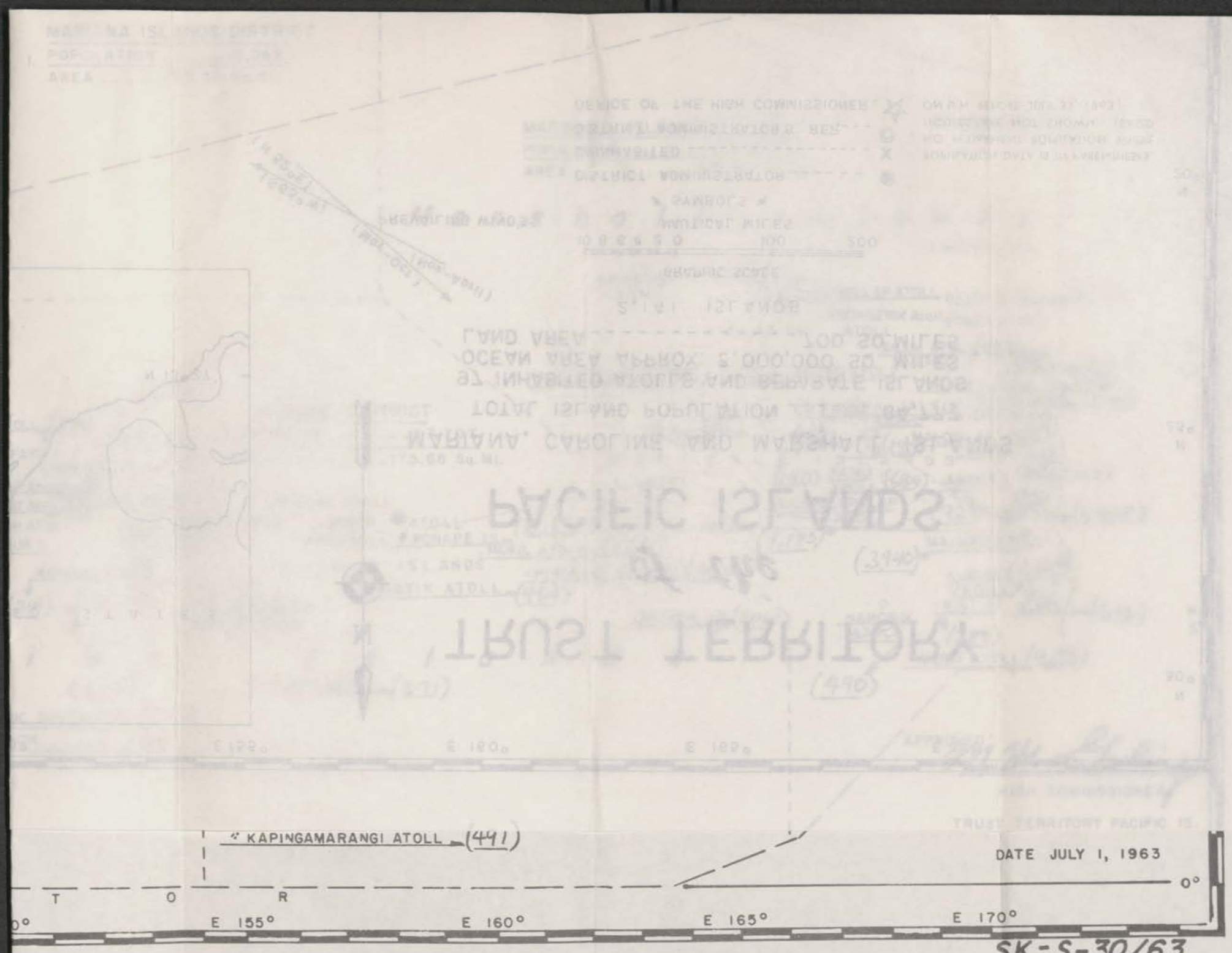
APPROVED:
M. W. Goding
HIGH COMMISSIONER
TRUST TERRITORY PACIFIC IS.
DATE JULY 1, 1963
SK.-S-30/63


KAPINGAMARANGI ATOLL (441)
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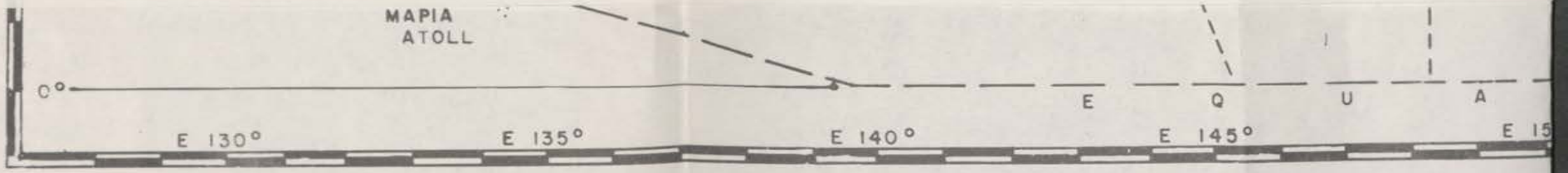


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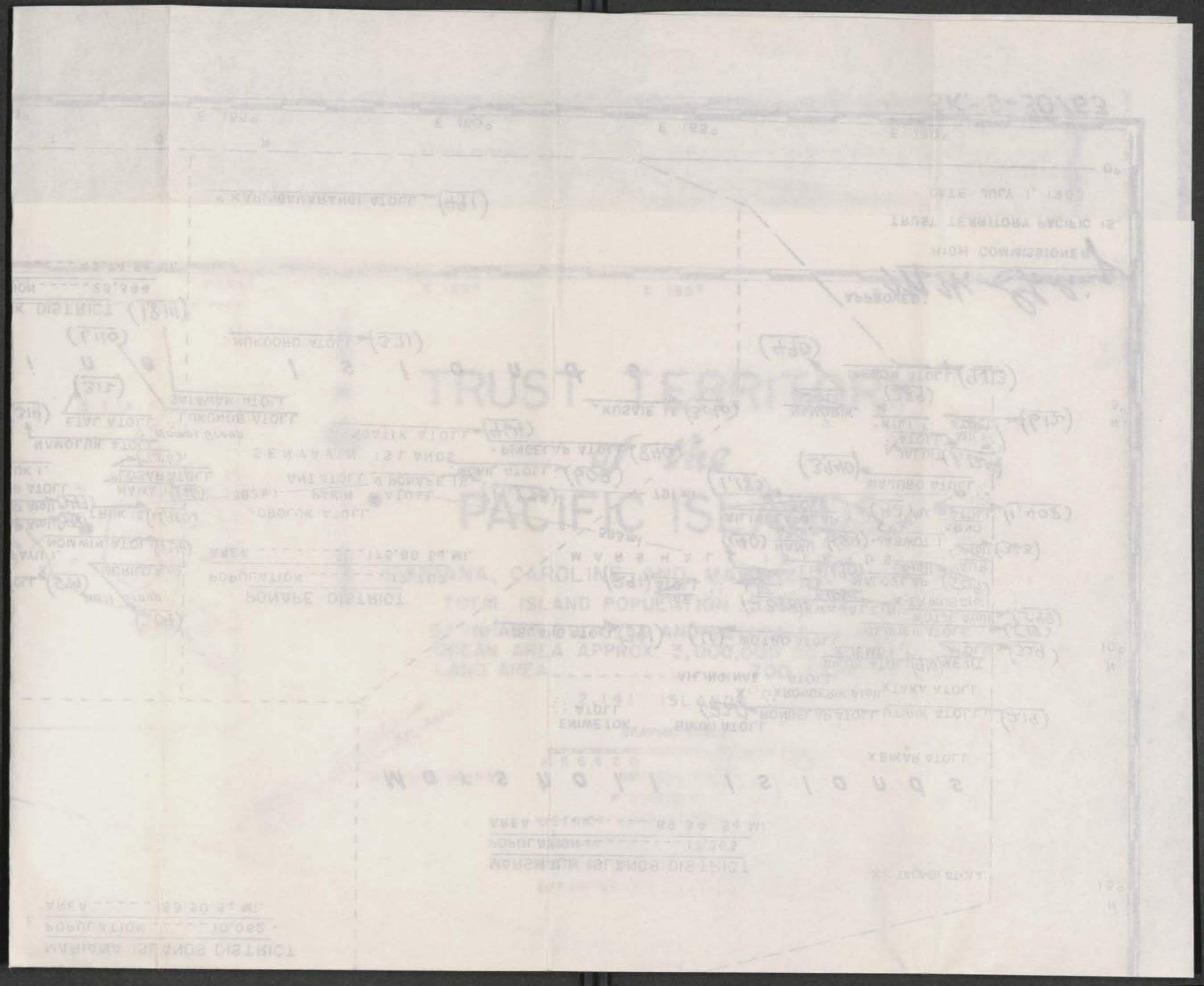
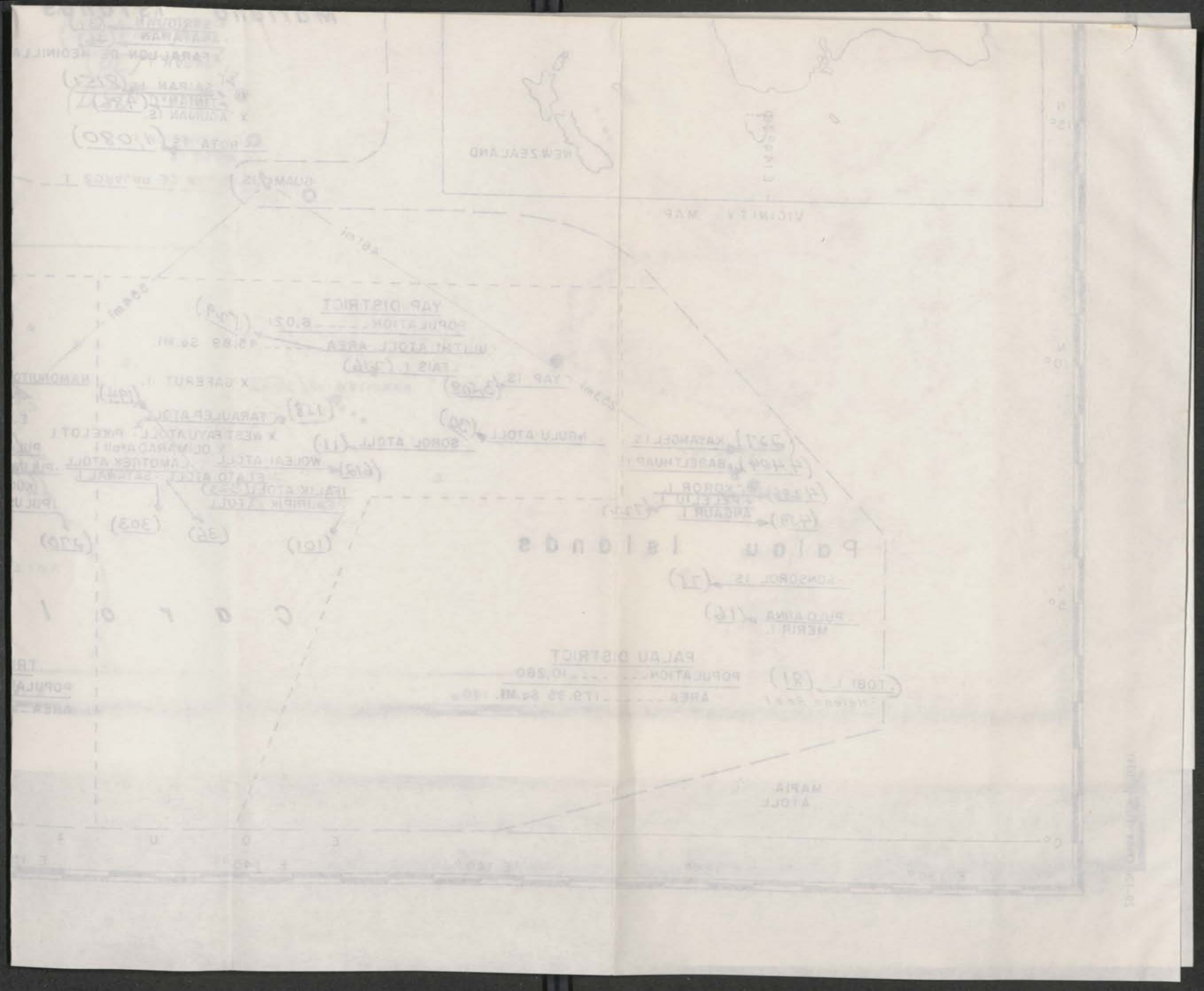




*Principal atolls and islands of the trust territory and population*—Continued

[District centers in italic]

| | Population |
|---|---|
| II. Palau district: | |
| 1. Koror Island | 4,296 |
| 2. Kayangel Island | 227 |
| 3. Babelthaup Island | 4,404 |
| 4. Peleliu Island | 722 |
| 5. Angaur Island | 459 |
| 6. Sonsorol Island | 75 |
| 7. Pulo Anna Island | 16 |
| 8. Tobi Island | 81 |
| Total, Palaus | 10,280 |
| III. Yap district: | |
| 1. Yap Island | 3,508 |
| 2. Ulithi Atoll | 529 |
| 3. Ngulu Atoll | 30 |
| 4. Sorol Atoll | 11 |
| 5. Fais Island | 216 |
| 6. Faraulep Atoll | 158 |
| 7. Woleai Atoll | 612 |
| 8. Lamotrek Atoll | 194 |
| 9. Satawal Island | 303 |
| 10. Elato Atoll | 36 |
| 11. Ifalik Atoll | 323 |
| 12. Eauripik Atoll | 101 |
| Total, Yap | 6,021 |
| IV. Truk district: | |
| 1. Truk Atoll | 15,980 |
| 2. Namonuito Atoll | 579 |
| 3. Murilo Atoll | 204 |
| 4. Nomwin Atoll | 434 |
| 5. Pulap Atoll | 348 |
| 6. Puluwat Atoll | 347 |
| 7. Nama Island | 876 |
| 8. Pulusuk Island | 270 |
| 9. Losap Atoll | 756 |
| 10. Namoluk Atoll | 314 |
| 11. Etal Atoll | 312 |
| 12. Lukunor Atoll | 1,110 |
| 13. Satawan Atoll | 1,814 |
| Total Truk | 23,344 |
| V. Ponape district: | |
| 1. Ponape Island | 11,873 |
| 2. Mokil Atoll | 608 |
| 3. Pingelap Atoll | 840 |
| 4. Ngatik Atoll | 464 |
| 5. Kusaie Island | 3,060 |
| 6. Nukuoro Atoll | 371 |
| 7. Kapingamarangi Atoll | 491 |
| Total, Ponape | 17,707 |

*Principal atolls and islands of the trust territory and population*—Continued

[District centers in italic]

| | Population |
|---|---|
| V. Marshall district: | |
| 1. Majuro Atoll | 3,940 |
| 2. Rongelap Atoll | 225 |
| 3. Utirik Atoll | 219 |
| 4. Ailuk Atoll | 410 |
| 5. Mejit Atoll | 329 |
| 6. Ujelang Atoll | 391 |
| 7. Wotho Atoll | 66 |
| 8. Likiep Atoll | 518 |
| 9. Wotje Atoll | 549 |
| 10. Ujae Atoll | 291 |
| 11. Kwajalein Atoll | 2,388 |
| 12. Lae Atoll | 140 |
| 13. Malowlap Atoll | 509 |
| 14. Lib Island | 190 |
| 15. Aur Atoll | 363 |
| 16. Namu Atoll | 684 |
| 17. Jabwot Island | 92 |
| 18. Airinglaplap Atoll | 1,183 |
| 19. Arno Atoll | 1,408 |
| 20. Jaluit Atoll | 1,124 |
| 21. Kili Island | 289 |
| 22. Mamorik Atoll | 490 |
| 23. Ebon Atoll | 953 |
| 24. Mili Atoll | 612 |
| Total, Marshalls | 17,363 |
| Total, Trust Territory of the Pacific Islands (72) [1] | 84,777 |

[1] This total of 72 is 25 less than the total of 97 shown on trust territory map SK.–S–30/63, dated July 1, 1963. This is due to the combining of certain small islands within their parent atoll grouping and by not listing areas where populations are of a more transient nature.

Chairman HAYDEN. Now, the Office of Minerals Exploration.

## OFFICE OF MINERALS EXPLORATION

## STATEMENT OF GEORGE FUMICH, JR., ACTING DIRECTOR; ACCOMPANIED BY FRANK E. JOHNSON, DEPUTY DIRECTOR; ALLEN S. DAKAN, CHIEF, DIVISION OF ADMINISTRATIVE MANAGEMENT; AND DALE L. ROTHROCK, FINANCE OFFICER

### 1965 BUDGET ESTIMATE

Chairman HAYDEN. The Office of Minerals Exploration proposes an appropriation of $900,000, an increase of $50,000 over the amount appropriated in fiscal year 1964.

The justification statement in support of this estimate will be included in the record.

(The statement referred to follows:)

### HIGHLIGHT STATEMENT

Under Public Law 85–701, the Office of Minerals Exploration stimulates exploration by private industry for domestic sources of minerals by contracting to pay a specified part of the cost of authorized exploration work. Federal funds provided under a contract are repaid with interest by a royalty on pro-

duction from the property. The program is designed to encourage exploration for long-range mineral reserves rather than to bring new properties into immediate production. The Office of Mineral Exploration also administers the projects with royalty obligations under the program of the former Defense Minerals Exploration Administration.

The level of interest in exploration assistance is expected to continue in 1965 assuring the obligation of the entire amount requested for financial assistance.

*Salaries and expenses*

| | |
|---|---|
| Appropriation, 1963 | $750,000 |
| Unobligated balance brought forward | 196,732 |
| Total amount available, 1963 | 946,732 |
| Appropriation, 1964 | 850,000 |
| Unobligated balance brought forward | 144,868 |
| Total available, 1964 | 994,868 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | |
|---|---|
| Decrease in financial assistance to participants in exploration projects | −94,868 |
| Net decrease, 1965 | −94,868 |
| Budget estimate, 1965 | 900,000 |

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. Financial assistance to participants in exploration projects | $590,702 | $760,868 | $666,000 | −$94,868 | ---------- | −$94,868 |
| 2. Technical and administrative services | 211,162 | 234,000 | 234,000 | ---------- | ---------- | ---------- |
| Unobligated balance brought forward | 144,868 | ---------- | ---------- | ---------- | ---------- | ---------- |
| Total | 946,732 | 994,868 | 900,000 | −94,868 | ---------- | −94,868 |

[1] All increased pay costs absorbed.

JUSTIFICATION

The estimate for 1965 is $900,000, an increase of $50,000 in appropriated funds over 1964, but it is a decrease of $94,868 in funds available.

The amount requested for 1965 will allow a total of only $666,000 for exploration assistance compared to $760,868 available for the 1964 program. It is anticipated that the interest in exploration, especially gold and silver, will be sustained. The size of the contracts executed has increased as more interest is shown in exploration for such minerals as mercury, molybdenum, gold, and silver.

Present performance indicates that the entire $760,868 available for financial assistance will be obligated during 1964 and assures obligation of the $666,000 requested for 1965.

The overall workload promises to continue at the same level throughout 1964 and 1965. The number of employees at the end of 1965 is expected to be 12, 1 less than at the end of 1963.

*The Office of Minerals Exploration program*

The Office of Minerals Exploration offers financial assistance to firms and individuals who desire to explore their properties or claims for 1 or more of the 35 mineral commodities listed in the OME regulations. This help is offered to applicants who ordinarily would not undertake the exploration under present

conditions or circumstances at their sole expense and who are unable to obtain funds from commercial sources on reasonable terms.

The Government will contract with an eligible applicant to pay up to one-half of the cost of approved exploration work as it progresses. Each contract specifies the work to be performed in a described area at costs estimated on an actual or fixed unit cost basis but limited in total amount. The work, based upon sound engineering and geological principles, is approved by the Government only after careful investigation. Ordinarily, contracts will not be approved for work which will require more than 2 years to complete; however, the time limit for most projects is fixed for a much shorter period.

Funds contributed by the Government are repaid with interest by a royalty on production from the property. If nothing is produced, there is no obligation to repay. A 5-percent royalty is paid on any production during the period the contract is in effect, and if the Government certifies that production may be possible from the property, the royalty obligation continues until the Government's contribution is repaid with interest, or for the 10-year period usually specified in the contract.

Simple interest is calculated at a rate not less than the rate which the Department would be required to pay if it borrowed from the Treasury, plus a 2-percent interest charge in lieu of the actual cost to the Governmqent of administering the contract.

*Accomplishments*

Under the DMEA program, predecessor to the OME, 399 projects were certified as discoveries on which the net recoverable value of potential ore reserves exceeds $1 billion estimated at current market prices. Royalties paid on production from DMEA projects exceed $4 million, and royalty payments from DMEA and OME projects are expected to continue at about $200,000 per year. Thus, it has cost the Government approximately 3½ cents for each dollar of recoverable value. This figure lessens as royalty payments increase. Also, as the deposits are mined, they will result in more industrial production, more employment, and more taxable income.

*Office of Minerals Exploration organization*

The Office of Minerals Exploration is a separate agency of the Department of the Interior, functioning under the supervision of the Assistant Secretary for Mineral Resources.

All OME employees are headquartered in Washington. The organization consists of the Director's Office, Division of Field Operations, Division of Minerals, Division of Contract Administration and Audit, Division of Administrative Management, and a review committee. All contract actions are reviewed by this committee composed of the chiefs of field operations, Division of Minerals, and Division of Contract Administration and Audit for conformance with OME standards and policy. Legal services are performed by the Solicitor's Office of the Department.

OME field officers detailed from the field staffs of the Bureau of Mines and the Geological Survey are utilized for all onsite field examinations, work inspections, interim reports, checking monthly vouchers for the amounts of the Government's share of the costs, field administration of exploration contracts, final reports, inspecting and reporting on certified projects, and representing the OME in all other activities within their respective regions.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $801,864 | $994,868 | $900,000 | −$94,868 |
| Unobligated balance brought forward | −196,732 | −144,868 | | +144,868 |
| Unobligated balance carried forward | +144,868 | | | |
| Appropriation | 750,000 | 850,000 | 900,000 | +50,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 142,916 | 162,000 | 147,000 | −15,000 |
| 12 Personnel benefits | 10,559 | 12,000 | 11,000 | −1,000 |
| 21 Travel and transportation of persons | 2,798 | 3,900 | 5,000 | +1,100 |
| 23 Rents, communications, and utilities | 2,217 | 2,000 | 2,000 | |
| 24 Printing and reproduction | 1,642 | 1,600 | 2,000 | +400 |
| 25 Other services | 6,616 | 6,500 | 8,000 | +1,500 |
| Services performed by— | | | | |
| Bureau of Mines | 29,400 | 30,000 | 38,000 | +8,000 |
| Geological Survey | 14,700 | 15,000 | 20,000 | +5,000 |
| 26 Supplies and materials | 306 | 1,000 | 1,000 | |
| 31 Equipment | 8 | | | |
| 33 Investments and loans | 590,702 | 760,868 | 666,000 | −94,868 |
| Total obligations | 801,864 | 994,868 | 900,000 | −94,868 |

PLANS AND RESPONSIBILITIES

Chairman HAYDEN. Will you please give your name, place your prepared statement in the record, and then discuss your past years' program for the committee and indicate your plans for the coming fiscal year?

(The statement referred to follows:)

STATEMENT OF GEORGE FUMICH, JR., ACTING DIRECTOR, OFFICE OF MINERALS EXPLORATION

Mr. Chairman and members of the committee, thank you for this opportunity to discuss the appropriation needed by the Office of Minerals Exploration to encourage exploration for domestic mineral reserves as authorized by Public Law 85–701.

PROGRAM FOR 1965

Although our request for $900,000 for 1965 is an increase of $50,000 in appropriated funds, it represents a decrease of $94,868 in funds available. It will allow $666,000 for exploration assistance in 1965 compared to the $760,868 available in 1964.

At this point our prospects for obligating 1964 funds look good. We have executed 5 contracts obligating $303,605 and we have 4 others approved for an additional $116,697 bringing total obligations to $420,302. In addition there are 22 applications in process and we can expect 25 to 30 more proposing $3 million in exploration work before the end of 1964.

In line with President Johnson's request for frugality, we are absorbing all increases in salaries and other costs. These costs will be held to $234,000; the same as for 1964. At the end of 1965 we will have only 12 persons on the OME staff, 1 person less than in 1964.

WORKLOAD

This small staff is responsible for three active programs, the current exploration assistance applications and projects, the surveillance of DMEA projects still obligated to pay royalty, and the lead and zinc stabilization program.

In spite of the decrease in available funds for exploration assistance, we anticipate no reduction in the volume of applications. We should receive at least 60 applications proposing more than $6 million in exploration projects and we expect to execute 15 contracts to obligate the entire amount available. In addition to this new business, there will be 30 or more contracts in

force with work in progress exceeding $2,600,000 which must be inspected and reported upon. We expect to collect about $225,000 in royalties from DMEA projects and $20,000 from OME projects. We will also work closely with the General Services Administration people on the lead and zinc stabilization program.

Much of the workload and a substantial part of the cost of administering the OME is devoted to the technical and professional assistance to applicants. We deal mostly with small firms and individuals who must rely on our staff for this help. Not only do we evaluate all applications submitted, but we are also called upon to aid in preparing or revising many applications to assure that the proposals are complete and well planned. These services provide a great saving to both the applicant and the Government by avoiding the cost of projects of little merit and by providing sound programs for those authorized.

PROGRAM

The OME offers financial assistance to firms and individuals who wish to explore their properties for 1 or more of 35 mineral commodities. This help is offered to applicants who ordinarily would not undertake the exploration under present conditions or circumstances at their sole expense and who are unable to obtain funds from commercial sources on reasonable terms.

We contract with an eligible applicant to pay one-half of the cost of approved exploration work. The applicant pays the rest. The Government participation in a single contract cannot exceed $250,000. Interest, at rates which have ranged from 5¾ to 6½ percent, is charged from the time funds are made available.

Funds contributed by the Government are repaid by a 5-percent royalty on production from the property. If nothing is produced, there is no obligation to repay. Royalty is paid on any production during the period in which work is being done under the contract; and if the Government certifies that production may be possible from the property, the royalty obligation continues until the Government's contribution is repaid with interest, or for the 10-year period usually specified in the contract.

NEED FOR LONG-RANGE EXPLORATION

Adequate supplies of new materials are of vital importance to our national economy, especially for the years of the future. These are indispensable to meet the needs of an expanding population and a rising standard of living. All of the projections point in that direction.

The OME program is primarily designed to encourage exploration for minerals which are in short supply or will be in the not too far distant future, and which will be required by an expanding economy. The extraordinary risks involved in searching for mineral deposits, the longtime lag between exploration and production, and the total loss of the investment in unsuccessful ventures with no possibility of converting to another type of business are among the factors that make an incentive program necessary. The supplies available and reserves developed for immediate production will have been consumed long before production begins from most of today's discoveries as the waiting time between the start of exploration and the flow of marketable ores from the mine is long—sometimes as much as 10 or 15 years.

We have vast areas of land which have not been explored for minerals. The mineral deposits, however, are not as easily found as in the past. They lie buried below overburden ranging from a few feet to several thousand feet in depth. Such deposits are now being found, but the risks and cost is so great that industry, especially the small operator, looks to other fields to invest funds. By sharing the risk and cost, OME channels some of this investment capital into exploration.

SHORT-TERM BENEFITS

Although the OME program is designed for the long-range needs of our Nation, it also results in benefits to the economy of today.

Every exploration project, whether successful or not, means more men at work, more supplies purchased, and more taxes paid in mining areas where most needed. Although we do not encourage the development of marginal, uneconomic deposits that would burden the minerals industry, there are and will be more discoveries of higher grade ore deposits, resulting in the development of economic mines that

can compete against the influx of imported ores, and in more employment and tax money for hard-hit mining communities.

If you have any questions, I shall try to answer them.

### DMEA, OME, and Lead and Zinc Stabilization Programs

Mr. Fumich. My name is George Fumich, Jr. I am Acting Director of the Office of Minerals Exploration and, as such, I have three different responsibilities.

One, we administer the DMEA program, two, we administer the OME program, and three, we administer the lead and zinc stabilization program.

I also am Director of Coal Research. I will start on that after I finish the other three.

As you know, we are asking for $900,000 for fiscal year 1965. I think in order to give you a better perspective of that figure I should take about a minute to give you a little background of previous requests for the past 3 years.

When I first became director, we had a request for $750,000. We also had a $304,000 carryover which meant we had $1,054,000 for our program. The next year we had a $750,000 authorization. We also had $196,000 carryover which meant $946,000 in our program. This year, for fiscal year 1964 we have an $850,000 formal budget and a $145,000 carryover, meaning that we have $995,000 for fiscal year 1964. So, actually, we are asking for a formal increase of $50,000; but in reality it is a $95,000 decrease in funds available.

Now, to give you the reasons that we think that we need and can utilize the $900,000, I think perhaps we should go into the program just a little bit.

### Contracts for Exploration Projects

This year so far we have signed nine contracts for exploration projects totaling $414,000. We have approved, and I have signed as the Acting Director, six different projects totaling $179,000, making a grand total of new business of $593,000, almost $600,000 in round figures.

We also have a project that we are now considering, totaling $48,000, which would throw that figure over $600,000.

We believe that we can easily utilize the $900,000 appropriation that we are requesting.

### DMEA Program

Now, to give you a little perspective of the program, itself; as you realize, we are a successor to the DMEA organization that was terminated on June 30, 1958. Under that particular program, 3,888 applications were received and 1,159 contracts were signed, for a grand total of about $57 million. One billion dollars worth of ore was discovered in that program. Royalties amounting to $4.7 million have been received also as benefits under that particular program.

During my travels in connection with the program, I have checked with various individuals. One individual told me he had not only repaid the money he had borrowed, but had also paid a million dollars in income taxes.

Another individual told me that, as a result of an exploration project, he was expanding his force to a total of over 300 people. So,

you can see the indirect beneficial results emanating from the DMEA program which was terminated.

OME PROGRAM

We believe the OME program is just as beneficial, and we think it should continue.

Chairman HAYDEN. You may place in the record the statement which you furnished in connection with the lead and zinc stabilization program for which you are asking no funds in fiscal year 1965, depending on an estimated unobligated balance of over $1,600,000 to provide the financing you will need.

(The statement referred to follows:)

LEAD AND ZINC STABILIZATION PROGRAM

HIGHLIGHT STATEMENT

The Secretary of the Interior is authorized by the act of October 3, 1961, (Public Law 87-347) to establish and maintain a program of stabilization payments to small domestic producers of lead and zinc ores and concentrates produced during the calendar years 1962 through 1965.

The act authorizes maximum stabilization payments as follows:

| | |
|---|---|
| Calendar year 1962 | $4,500,000 |
| Calendar year 1963 | 4,500,000 |
| Calendar year 1964 | 4,000,000 |
| Calendar year 1965 | 3,500,000 |

The fiscal year 1962 appropriation was $4,690,000 (no year money) and the fiscal year 1963 appropriation was $2,450,000 (unexpended funds revert to the Treasury).

Of the funds appropriated in 1962, $3,625,589 remained available at the close of 1963. It is anticipated that this amount will be adequate for obligations to be incurred during both 1964 and 1965.

| | |
|---|---|
| Appropriation, 1963 | $2,450,000 |
| Unobligated balance available from prior year | 4,690,000 |
| Total available, 1963 | 7,140,000 |
| Appropriation, 1964 | |
| Unobligated balance available from prior year | 3,625,589 |
| Total available, 1964 | 3,625,589 |
| Estimated obligations, 1964 | −1,976,000 |
| Estimated unobligated balance available, 1965 | 1,649,589 |

*Analysis by activities*

| Activity | Amount available, 1963 | Amount available, 1964 | Amount available, 1965 | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| 1. Stabilization payments | $1,620,368 | $1,915,000 | $1,588,589 | −$326,411 | | −$326,411 |
| 2. Administration | 75,226 | 61,000 | 61,000 | | | |
| Unobligated balance lapsing | | | | | | |
| Unobligated balance carried forward | 3,625,589 | 1,649,589 | | −1,649,589 | | |
| Total | 7,140,000 | 3,625,589 | 1,649,589 | 1,976,000 | | −326,411 |

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $1,695,594 | $1,976,000 | $1,649,589 | −$326,411 |
| Unobligated balance carried forward | 3,625,589 | 1,649,589 | | −1,649,589 |
| Unobligated balance brought forward | −4,690,000 | −3,625,589 | −1,649,589 | +1,976,000 |
| Unobligated balance lapsing | 1,818,817 | | | |
| Appropriation | 2,450,000 | | | |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 34,226 | 21,000 | 15,000 | −6,000 |
| 12 Personnel benefits | 3,000 | 1,000 | 2,000 | +1,000 |
| 21 Travel and transportation of persons | 2,000 | 3,000 | 3,000 | |
| Payments to interagency motor pool | | | | |
| 23 Rents, communications, and utilities | | | | |
| 24 Printing and reproduction | | | | |
| 25 Other services | | | | |
| Payments to administrative operations funds | 35,000 | 35,000 | 40,000 | +5,000 |
| 26 Supplies and materials | | | | |
| 31 Equipment | 1,000 | 1,000 | 1,000 | |
| 41 Grants, subsidies, and contributions | 1,620,368 | 1,915,000 | 1,588,589 | −326,411 |
| Total obligations | 1,695,594 | 1,976,000 | 1,649,589 | −326,411 |

AUTHORIZATION AND EXPENDITURE FOR THE PROGRAM

Mr. FUMICH. Yes, sir. We have a statement. Do you want me to make an informal statement on the lead and zinc program?

Chairman HAYDEN. Yes; if you will, but your prepared statement will be included in the record.

(The statement referred to follows:)

STATEMENT OF GEORGE FUMICH, JR., ACTING DIRECTOR, OFFICE OF MINERALS EXPLORATION

Mr. Chairman and members of the committee, no additional funds are required for the lead and zinc stabilization program during 1965. The funds available from previous appropriations are expected to be sufficient.

As of December 13, 1963, 75 small domestic producers of lead and zinc had received payments aggregating $1,772,000. Payments for fiscal year 1964 are estimated at $1,915,000 and for fiscal year 1965 at $1,588,589. Administrative costs are estimated at $61,000 for each year.

Under the act of October 3, 1961 (75 Stat. 766) small domestic producers may receive stabilization payments for lead and zinc ores or concentrates. To qualify for these payments the applicants must show that they are established producers whose production has not exceeded 3,000 tons of recoverable lead and zinc in any 12-month period since January 1, 1956, and that lead and zinc were the principal minerals produced.

Qualified small producers may receive stabilization payments on eligible production sold after January 1, 1962. The payment per pound for lead is 75 percent of the difference between 14.5 cents and the average New York price for the month in which the sale occurred. The payment per pound of zinc is 55 percent of the difference between 14.5 cents and the average St. Louis price for the month in which the sale occurred. The program will end on December 31, 1965.

The limited participation in the stabilization program may be attributed to the improvements in the market prices of lead and zinc and to the small number of producers who applied for participation.

Mr. FUMICH. Under the program in 1962, we were formally authorized a total of $4,690,000. We were also authorized for the 1963 fiscal year a total of $2,450,000. Now, we spent in calendar year 1962 $1,012,581 for subsidies during that period. We also had an administrative total of $51,830, making a grand total of $1,064,411. Now, subtracting the $1,064,000 from the $4,690,000 gives you a total of

$3,626,000 that we have available for the program during fiscal year 1964.

We expended $631,000 during 6 months of fiscal 1963 which meant that $1,819,000 reverted back to the Treasury. But we will not need any more money.

We are estimating that this program is going to cost during fiscal year 1965 a total of $1,650,000. This year it should cost $1,976,000, which means that we will have remaining for fiscal year 1965 enough money to continue the program.

We misjudged the scope of the program because when this legislation was passed it was estimated that during the first year, 1962, the payments would total $4½ million, the same amount in 1963, $4 million in 1964, and $3.5 million in 1965. So far, the total cost is $1,882,000, $96,000 of that being administrative expense.

We think the program has been administered very well. The total was about $51,000 for the first calendar year. It has been $44,000 so far during this year, making a total of $96,000 administrative funds already expended. We believe that for fiscal year 1965 it will be reduced to around $61,000.

PRODUCERS ELIGIBLE FOR THE PROGRAM

I think that from those figures alone you can get an idea of what is happening to the program. Originally, we thought that between 350 and 500 producers would become eligible for the program. The estimate was based on figures for the 5-year qualification period. For this program we have 5 years from January 1, 1956, to August 1961. Now we had estimates that there were 627 zinc and lead producers in the United States in 1956.

Senator BIBLE. What was that figure?

PROGRAM STATISTICS

Mr. FUMICH. 627 in 1956.

We also believed that 574 of those produced less than 3,000 tons of lead and zinc combined. In other words, they were eligible for that year.

In 1957 we found that 475 out of the 525 were small producers. The next year the figure was 326. The next year we found 213 out of 250 and the next year, 1960, 273 out of 350.

So, on the average, we figured at least 300 and probably 500 for the program as based on tonnage during that particular period.

For some reason we have only received 125 applications for the program. Of that number 98 have been certified and only 75 have received any payments.

The 75 were paid $1,786,000 during the program. Average tonnage was about 559 apiece. The average payment is about $23,800. The first year the figures were slightly smaller. We had 55 producers paid that year. The tonnage was 21,151 of lead and zinc combined. The average that year was 384 tons apiece, and I think the money expended for each producer averaged around $18,410. But this will give you an idea of what each producer received in the program on an average.

There were 10 States involved, and I can give you the number of applications and certificates in each State.

Chairman HAYDEN. Do you have a question?

Senator BIBLE. Mr. Chairman, I must compliment the witness on the method and manner of his presentation of statistics. He reminds me of our colleague, Senator Byrd, in this. He didn't consult a note. I trust his figures are right, and he reels them out like an IBM.

### NUMBER OF EMPLOYEES OF PROGRAM PARTICIPANTS

I was one of the cosponsors of the lead and zinc program. I have mixed and mingled feelings about it. There are certainly a tremendously small number of participants at what it seems to me a rather high cost. In other words, you have told us as of December 13, 1963, you simply had 75 small domestic producers and you paid them $1,772,000 or $1,780,000, whatever it was. How many employees did these 75 producers have?

Mr. FUMICH. Sir, we have no figures on that. I am sorry to say I can't give them to you. We have tried to estimate how many participants might be encouraged into the program, and the resulting splaying over into the number of employees that would be increased in the industry. But we haven't been able to get those figures. We really don't administer the program. GSA administers it. We coordinate with them, and have the independent responsibility of reporting it.

Senator BIBLE. It seems to me that is a very, very small number, and I would have hazarded the guess that probably these small domestic producers, these 75 producers, are probably solo operators or maybe have one or two people along with them, what we think of as an old prospector.

Mr. FUMICH. If you don't get bored, I can give you some more figures on it.

Senator BIBLE. I don't want to lengthen the hearing; but I have some real doubt about the program.

### BUREAU OF MINES STATISTICS ON PRODUCERS

Mr. FUMICH. Based on the Bureau of Mines statistics, we found that of the 574 producers producing less than 3,000 tons of lead and zinc combined, 420 of that group produced less than 100 tons each. They evidently fit the category you describe.

Senator BIBLE. A man producing that couldn't make much of a living.

Mr. FUMICH. That is it. A lot of those, because of attrition perhaps, or because the program was going to last only 5 years, went into other businesses. Out of 273 producers I mentioned in 1960 we found that 203 of that group produced less than 100 tons each, leaving 70 producers producing more than 100 but less than 3,000 tons each. It gives you a good idea of the great mortality rate in the small group.

Senator BIBLE. Just one more question, Mr. Chairman.

I have been interested in the region of the country this would help the most. Where are the 75 small domestic producers located?

### LOCATION OF PROGRAM PRODUCERS

Mr. FUMICH. There are 125 that applied for the program and 98 were certified. Only 75 were paid so far. More will be paid. These are the only ones putting in invoices.

Senator BIBLE. I understand. Of 75 receiving payments where were they located?

Mr. FUMICH. We had 8 out of 9 in Nevada; 8 out of 10 in Montana; 3 out of 3 in California. We had 24 out of 30 in Oklahoma; 24 out of 29 in Idaho; we had in New Mexico 3 out of 4; in Arizona, we had 3 out of 4.

Senator BIBLE. Will you explain? You say in Nevada eight out of nine.

Mr. FUMICH. Eight producers were certified out of nine that applied for participation in the program.

Senator BIBLE. How many received payments in Nevada. I thought there was one producer in Nevada that received payments.

Mr. FUMICH. In Nevada, payments were $27,000. I know it wasn't much.

Senator BIBLE. I want to know how many producers.

Mr. FUMICH. Five producers were actually paid but there were eight eligible.

Senator BIBLE. I appreciate that information.

How many of the 75 were located in the so-called tristate area?

Mr. FUMICH. In Oklahoma 30 applied plus 6 in Kansas; so that would be 36. That would cover your tristate. None from Missouri.

Senator BIBLE. Those were the ones that received payments?

Mr. FUMICH. Thirty of these were certified eligible for the program. How many received payments? These would be eligible to receive payments.

Senator BIBLE. There were 36 in the tristate?

Mr. FUMICH. Twenty-six approximately out of that group have been paid.

Senator BIBLE. Thank you, Mr. Chairman.

Chairman HAYDEN. Any further questions?

Then I will ask you to take up the Office of Coal Research.

## OFFICE OF COAL RESEARCH

### STATEMENT OF GEORGE FUMICH, JR., DIRECTOR; ACCOMPANIED BY G. EDWARD LARSON, CHIEF, DIVISION OF CONTRACTS AND ADMINISTRATION; NEAL P. COCHRAN, CHIEF, DIVISION OF UTILIZATION; WAYNE A. McCURDY, CHIEF, DIVISION OF MINING AND PREPARATION; AND HOWARD A. SMITH, CHIEF, DIVISION OF ECONOMICS AND MARKETING

#### 1965 BUDGET ESTIMATES

Chairman HAYDEN. The Office of Coal Research estimates its needs for fiscal year 1965 at $6,836,000, an increase of $1,761,000 over the fiscal year 1964 appropriation. The material submitted in justification of this budget request will be printed in the record.

(The highlight statement referred to follows:)

#### HIGHLIGHT STATEMENT

The Office of Coal Research estimate for fiscal year 1965 is $6,836,000. This represents an increase of $1,761,000 over the current fiscal year appropriation of $5,075,000. It is $24,928 less than the $6,860,928 available this year, which

includes the fiscal year 1964 appropriation of $5,075,000 and a carryover balance from fiscal year 1963 of $1,785,928.

The Office of Coal Research has a staff of 20 persons, 5 below the staff ceiling of 25. This ceiling has prevailed for the past 2 fiscal years.

Outstanding proposals for contract research work continue to come into the Office of Coal Research from industry, research organizations, and educational institutions.

The Office of Coal Research has signed a total of 17 contracts to date. Five have been completed. There will be several more signed with existing fiscal year 1964 funds and further contracts in fiscal year 1965 as outlined.

The General Technical Advisory Committee of the Office of Coal Research met twice during the past year and meet again in January 24, 1964. The Committee has been apprised of work underway as well as work contemplated. Individual members of the Committee have been consulted more frequently based on their special background and technical ability. Separate technical consultants have been used quite extensively to assist the Office of Coal Research in the review of the Office of Coal Reserach proposals and projects, and as a consequence the entire program has been benefited and strengthened through their advice and counsel.

The Office of Coal Research contractors have met with members of the Office of Coal Research staff on several occasions to discuss mutually the program under the respective contracts and also to exchange information and insure the greatest possible coordination of effort, and the avoidance of duplication.

The needs for funding of contract programs already underway will require the bulk of funds requested in the fiscal year 1965 the Office of Coal Research budget request. After these needs are met, it will be possible for the Office of Coal Research to carry out a total program no larger than the one which was possible this year.

*Salaries and expenses*

| | |
|---|---|
| Appropriated, 1963 | $3,450,000 |
| Unobligated balance from prior year | 113,237 |
| Total available, 1963 | 3,563,237 |
| Appropriated, 1964 | 5,075,000 |
| Unobligated balance from prior year | 1,785,928 |
| Total available, 1964 | 6,860,928 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | |
|---|---|
| Administration and contract supervision: To provide for increased pay cost, 1964 positions | +11,000 |
| Contract research: Net decrease in estimate over amount available due to carryover balance | −35,928 |
| Net decrease | −24,928 |
| Budget estimate, 1965 | 6,836,000 |

*Analysis by activities*

| Activity | Amount available, fiscal year 1963 | Amount available, fiscal year 1964 | Estimate, fiscal year 1965 | Increase (+) or decrease (−) fiscal year 1965 compared with fiscal year 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Administration and contract supervision | $230,482 | $325,000 | $336,000 | +$11,000 | +$11,000 | |
| Contract research | 1,546,827 | 6,535,928 | 6,500,000 | −35,928 | | −$35,928 |
| Unobligated balance | 1,785,928 | | | | | |
| Total | 3,563,237 | 6,860,928 | 6,836,000 | −24,928 | +11,000 | −35,928 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

JUSTIFICATION

OFFICE OF COAL RESEARCH

The Office of Coal Research (OCR) estimate for fiscal year 1965 is $6,836,000. This represents an increase of $1,761,000 over the current fiscal year appropriation of $5,075,000. It is $24,928 less than the $6,860,928 available this year, which includes the fiscal year 1964 appropriation of $5,075,000 and a carryover balance from fiscal year 1963 of $1,785,928.

The Office of Coal Research has a staff of 20 persons, 5 below the staff ceiling of 25. This ceiling has prevailed for the past 2 fiscal years, and OCR estimates that it may be possible to continue to perform its functions adequately during fiscal year 1965 at below the ceiling level.

Proposals for worthwhile contract research continue to be received from outstanding research-oriented organizations. A total of 277 proposals have been received from the inception of the Office to the present time. Currently, 12 contracts are underway. Five contracts have been completed. OCR has executed contracts in the past 6 months which greatly exceed in dollar amount the total of all contracts signed in the previous 2 fiscal years.

The contracts underway and planned complement one another in varying degrees. OCR seeks to assist the coal industry to be in a position, through the avenue of productive research, to avail itself of the opportunities that such research will afford for a stronger future role in the competitive fuels, energy, and byproduct markets in our Nation and abroad in the years immediately ahead.

The projects which OCR has underway or planned are aimed at improving the markets for coal in order to permit it to share more aggressively in the growing market for energy. In this connection, OCR is coordinating its efforts more closely than ever through our various panels of technical experts, and with the Bureau of Mines to insure a coordinated effort with present or prior private and governmental research.

Coal represents by far our greatest known source of energy, and it can become an increasingly important source of byproducts intended for further processing in America's growing industrial economy. Resources potentially available for use, total well in excess of 1 trillion tons.

The future will provide large-scale markets for coal in the areas of liquefaction and gasification, and the imminence of these new markets will depend on the results of the OCR contract research activity.

There is a growing requirement for coal and coal products to satisfy energy needs in a form that will most readily enable coal to meet consumer acceptance, and do it economically.

The program of the Office of Coal Research enables the Government to avail itself of all scientific skills that may in any way bear on coal technology, as well as of the extensive research backgrounds and facilities of outstanding research-oriented organizations in the country and enables the OCR to focus this scientific know-how on the problems of coal.

The Office of Coal Research gives emphasis to research and development projects involving relatively short-term effort and which offer a tonnage potential for improving coal's market position. OCR phases its contracts in such a manner that future work is contingent upon successful completion of the preceding phases.

The fiscal year 1965 budget requests contain only $500,000 to initiate contract work on new projects. The balance (exclusive of administrative and supervisory funds) totaling $6 million would be used to continue further efforts on contracts already in existence, or which is anticipated to be executed during the remainder of fiscal year 1964.

The problems confronting the coal industry are many and large. They have been developing over a long period of time, and a concerted effort will be required to diminish and alleviate the problems appreciably. The efforts of the Office of Coal Research to date have just begun to strike at the heart of some of these problems. In the future, considerably greater funds than are presently available may be necessary.

The recently published report of the Office of Science and Technology, Executive Office of the President, titled "Research and Development of Natural Resources" points out that, of approximately $1.5 billion of Federal research and development funds related to energy resources programed in fiscal year 1963, only about 0.4 percent is now directed toward coal. The report recommends more

coal research, in part to enhance its competitive position, but mainly because coal is regarded as a natural resource of tremendous significance, because we as a nation are blessed with relatively large quantities of it by comparison with other fossil fuels, and because coal is a valuable source of organic compounds and rare elements potentially useful for a wide variety of uses.

OCR PROJECT SCHEDULE

It is estimated that the fiscal year 1965 funds requested in this program for contract research ($6,500,000) would be used to fund continuing research on existing projects and to undertake research activity on projects shown in "C" (below):

A. Projects under contract (Dec. 31, 1963):
1. Pope, Evans & Robbins.[1]
2. Virginia Polytechnic Institute.[1]
3. FMC Corp.[1]
4. General Electric Co.[1]
5. Ralph M. Parsons Co.
6. West Virginia University [1a].
7. Spencer Chemical Co.
8. University of Utah.[1]
9. Westinghouse Electric Corp.
10. Consolidation Coal Co.[2]
11. Rand Development Corp.[2]
12. Bituminous Coal Research, Inc.[2]

B. Projects expected to be awarded contracts during remainder of fiscal year 1964:
1. M. W. Kellogg Co.
2. Institute of Gas and Technology.
3. Melpar.
4. South Dakota lignite project.
5. Pennsylvania State University.
6. Atlantic Refining Co.
7. General Electric Co.[3]
8. Economics (General).
9. Transportation system projects.

C. Projects proposed for contract in fiscal year 1965:
1. MHD Research, Inc.
2. Spencer Chemical Co.[3]
3. Iowa State University.
4. Westinghouse Electric Corp.[3]
5. West Virginia University.
6. Virginia Polytechnic Institute.
7. Parsons-Jurden, Inc.

[1] Project totally funded as of Dec. 31, 1963.
[1a] To be totally funded by June 30, 1964.
[2] Signed in fiscal year 1964.
[3] Contemplated extension of existing contract.

Description of projects to be funded with fiscal year 1965 moneys follows:

A. PROJECTS UNDER CONTRACT (DECEMBER 31, 1963)

*1. Pope, Evans & Robbins*

Designs and specifications for two alternative versions of a new automated coal-fired boiler plant developed under this contract were released to the public December 23, 1963.

In addition to the presently completed plants having a capacity of 100,000 pounds per hour of steam, additional designs will be developed and made available for plants of 80,000, 60,000, and 40,000 pounds of hourly capacity. Each design will offer above and below-ground coal-storage options.

It will be possible to install these units at costs considerably below present coal-fired units in this capacity range and will require no more attendance than oil and gas-fired units. The designs and specifications are of such detail and quality that, except for normal site engineering, a designer or manufacturer of coal-burning systems would be able to build a plant from them.

*2. Virginia Polytechnic Institute*

Mathematical model mining systems have been developed involving loading machines, continuous mining machines, and commonly used production area haulage systems. Models have also been developed to describe the cost of production supplies under these mining systems.

The computerized mining system programs have been field tested to a limited degree and have been demonstrated to correctly describe the actual operation and performance within a few percentage points.

Full-scale testing and demonstration of the program's accuracy and capability have begun. Actual mining operations will be varied as indicated by the computor methods to improve operations. Performance will then be compared with the computed improvements.

*3. FMC Corp.*

A laboratory-scale process has been developed for producing liquid crude from coal. The quantity of liquid is sufficient to act as a vehicle for transporting the remaining solid portion of the coal. Extrapolation of these results to a conceptual commercial plant indicate a solid commercial potential. During this fiscal year (1965) the contractor will be operating at a process development scale (about 100 pounds per hour) to confirm these laboratory results.

*4. General Electric Co.*

The General Electric Co. has hydrogenated coal at low pressure and temperature under the influence of corona. These test results, extrapolated to a full-scale plant, indicate commercial feasibility. Results are currently being checked and if these data can be validated, piloting of the process will be undertaken during fiscal year 1965.

*5. Ralph M. Parsons Co.*

This contract is presently inactive, and will not become active until the design and pilot plant development stage of the Consolidation Coal Co. is reached. At that time there will be further need for the services of Parsons.

*6. West Virginia University*

This contract seeks to determine the quantity, quality, and means of economic recovery of potentially valuable secondary products found in or adjacent to mineable coal seams. High-alumina clays underlying several major coal seams have been located and mapped, as well as other clays that appear amenable to processing to ceramic grade. Several seams has been determined to contain potentially interesting concentrations of germanium and other minerals and ores.

The university has developed a potentially patentable low-cost process for making super strength brick and other construction materials from fly ash, coal-associated sand and clay, and sodium silicate. Additional investigation of this development will be made.

*7. Spencer Chemical Co.*

The Spencer Chemical Co. has successfully operated their process development plant and have shown that a high quality, very low-ash coal can be produced at competitive prices. Commercial interest in this development is very substantial and estimates for piloting this process are currently being reviewed. Preliminary design of the pilot plant will be undertaken by April 1964.

*8. University of Utah*

The contractor is continuing the laboratory testing of reactions of western coals. Small-scale hydrogenation equipment is being installed and will be operable during the first half of 1964, thus considerably expanding the field of investigation.

*9. Westinghouse Electric Corp.*

The contractor is making good progress in developing economical materials, methods of construction, and methods of operation of a fuel cell with coal-derived gases. The objective is to produce a high temperature fuel cell system producing direct current electric power from coal in a compact, high-efficiency, economically attractive system. Fifteen-cell batteries have been built and operated and a 100-watt system soon will be constructed.

While many problems remain, the rate of progress in solving previous problems has been good and the possibilities for ultimate success in developing a useful coal utilization system are good.

*10. Consolidation Coal Co.*

This project was executed on August 30, 1963. The objective is to develop an economically competitive coal-to-gasoline process through the pilot plant stage. Work is presently proceeding on a bench-scale effort, primarily centered on the catalytic hydrogenation step which is a key to ultimate successful operation. Good progress has been made with preliminary indications of better results than originally contemplated. In addition, work is proceeding on planning for the engineering of the pilot plant which will be built and operated if the present bench-scale work is successful.

*11. Rand Development Corp.*

This contract has just begun. The project is directed toward developing an entirely new use of coal for treating sewage and industrial wastes. Success could open a new market for over 1 million tons of coal within a few years, and a market that will continue to expand. The Public Health Service has indicated that many waste treatment plants will be built and others will require expansion within a few years, making it desirable that this project be demonstrated quickly so that coal may share in the predicted expansion of sewage-treatment facilities.

The research work will seek to develop an integrated process whereby the unique properties of coal as an adsorbent and settling agent are utilized to facilitate the removal of sewage and industrial wastes from water.

*12. Bituminous Coal Research, Inc. (Project Gasification)*

This project will be directed toward development of gasification equipment for the industrial energy market, for generation of synthesis gas, and for a gas to transport low-ash coal in a coal-gas pipeline. Emphasis will be on improving throughput and on reducing costs. Use of waste products from existing coal-preparation plants will be evaluated as raw feed.

This work is related to other aspects of OCR's program in gas manufacture, in transportation of coal in coal-gas pipelines, and in the search for a low-cost fuel for the fuel cell under development in the Westinghouse project.

Work will be coordinated with the M. W. Kellogg and IGT projects.

B. PROJECTS EXPECTED TO BE AWARDED CONTRACTS DURING REMAINDER OF FISCAL YEAR 1964

*1. M. W. Kellogg Co. (Project Gasification)*

This work will seek to develop a method for gasifying coal with use of air rather than oxygen. The gas produced can be used to manufacture pipeline gas, chemicals, or to transport high-quality coal in a coal-gas pipeline. Low-cost hydrogen, needed in all conversion processes, may also be produced.

It is planned that Kellogg will provide engineering services to BCR and IGT for design and construction of pilot plants.

*2. Institute of Gas Technology/American Gas Association (cosponsor) (Project Gasification)*

This proposed project will accelerate development work currently underway and is an outgrowth of work performed in the past by IGT and the Bureau of Mines. The object is to produce pipeline gas at 50 cents a million B.t.u.'s, which may be sold to pipeline companies or directly to utility companies for distribution. Gas at 50 cents a million B.t.u.'s would be a technologic and economic breakthrough; the barrier is a cost of about 70 cents a million B.t.u.'s. Pilot-plant operation is contemplated. The outlook is for one commercial plant by 1970 and for three plants by 1975, for a coal consumption on the order of 10 million tons a year by 1975. Development of a high-B.t.u. gas to supplement natural-gas supply would benefit the coal and natural gas industries alike.

*3. Melpar, Inc. (Project Anthracite)*

This is the only promising project regarding anthracite that OCR has yet been able to develop. It would cover laboratory scale, bench scale, and pilot plant work in turn. The objective is to (*a*) reduce the ash content of anthracite, (*b*) make acetylene from some of it, (*c*) make a gas from the rejected anthracite, and (*d*) transport the high-value low-ash anthracite in the gas, for sale to nearby electric-generating plants. Proceeds from sale of the acetylene would be used as a credit to reduce the cost of the anthracite in order to assure anthracite sales.

If successful, this project could increase the annual production of anthracite by 5 million tons by 1970 and by 10 million tons by 1975. (1961 production was about 18 million tons.) Additionally, cheap acetylene could be instrumental

in creating a chemical manufacturing industry in the anthracite area, with additional attrition on unemployment. The project is related to other work of the Office of Coal Research in its gasification and coal gas pipeline phases.

*4. South Dakota lignite project*

This work is to develop a feasible process for producing gas from South Dakota lignites. An analysis of all known technology, supported by laboratory investigation, will be made to determine the best process. Based on this, a pilot plant will be constructed and operated to test the commercial value of the process.

*5. Pennsylvania State University (Project Petrography)*

This project would determine (*a*) whether certain constituents of coal may be convertible to liquid or gas more readily than others, (*b*) whether such constituents can be commercially concentrated, (*c*) what coal constituents contain the materials that found the catalysts in conversion operations, and (*d*) whether this material can be eliminated in ore-dressing operations. By eliminating the handling of worthless material, and by eliminating also the catalyst poison(s), success of this project would improve drastically the economics of all coal-conversion projects; a successful end result may be the determining factor as to whether a conversion process can be developed to the point of commercial use. The reject material may be more suitable for gasification than is regular coal.

*6. Atlantic Refining Co.*

This proposed project is to develop a process for mixing coal and residual fluid oil and treating the mixture to produce refinery feed stock and a low-priced coke for burning in nearby central station electric-generating plants. Any commercial plant would be at an oil refinery (oil refineries have and use part of the necessary equipment) and would be part of the refinery operation. Successful conclusion of the project would open up a market to coal not heretofore considered breachable via the OCR program; i.e., the residual fuel oil market (largely the northeastern seaboard area), in which there are many oil refineries and nearby power-generating plants.

In addition to the main process development, supporting research in the fields of catalysis and utilization of byproduct asphalts would be performed, work that could be universally useful in all OGR's coal conversion projects.

The earliest commercial plant would be about 1970, but by 1975 the new coal consumption could be about 3 million tons a year.

*7. General Electric Co. (Project Bootstrap)*

General Electric has produced gases and liquids from coal in small laboratory electric corona reactors without catalysts. Current efforts are directed toward testing the process in a larger reactor of improved design. It is expected that the yield of both liquids and gases will be improved.

If the yield is improved, and the apparent process economics are satisfactory, a pilot plant project may be undertaken. The commercial tonnage potential is estimated at perhaps 4 million tons a year by 1970.

*8. Economics and marketing projects (general)*

The Economics and Marketing Division is a point of evaluation of proposals received by the Office of Coal Research, as well as of economic evaluation at points of progress on going projects. In the course of this work areas may be revealed that require further economic research. Some of this can be done by the Division itself, but others require the more intensive efforts available through contract. Areas of activity being investigated for research projects are transportation, capital investment, and marketing.

*9. Transportation system projects*

The Office of Coal Research has several proposals in hand directed toward developing an integral transport system capable of delivering coal over a distance of several hundred miles at costs much below present rail rates. The advice of the OCR General Technical Advisory Committee is being sought on the precise nature and financial terms of research to be undertaken.

A successful end result would make possible substantial reductions in the total cost of delivered coal, and should attract or recover an ever-increasing number of large, bulk consumers; such as power generation stations and export markets.

C. PROJECTS PROPOSED FOR CONTRACT IN FISCAL YEAR 1965

*1. MHD Research Corp.*

MHD Research Corp proposes to apply latest developments in chemistry to

development of a process for commercial production of hydrogen. The cost of hydrogen is important in the economics of all coal-conversion processes. It is usually manufactured from natural gas at a cost of 35 cents or more per thousand cubic feet in the coal-producing areas. The target of the MHD process is a cost of about 25 cents a million cubic feet. Success could help assure the success of the Consolidation Coal Co. project and like projects.

The process would employ modern plasma (ionized gas) chemistry. Successful commercial application of plasma chemistry to coal would undoubtedly lead to other processes producing chemicals and fuels.

*2. Spencer Chemical Co.*

Successful completion of operations in the 100-pound-per-hour unit described under A may necessitate larger scale operations as a prelude to commercial scale production. A pilot plant with an estimated capacity up to 100 tons of coal feed a day would be constructed, probably in a suitable coal-producing area. Its output will be utilized and tested in commercial, or simulated commercial, channels. Successful completion of this operation should provide a sufficient basis for construction of full-scale commercial plants by others.

*3. Iowa State University*

This project is to explore, on a laboratory basis, a system of processing coal by electric resistance heating in a fluidized bed reactor. Theoretical considerations indicate that this method has the potential of producing a wide range of useful chemicals, liquid fuels, and gases from coal. This idea will be explored in the laboratory on a very small scale. Successful experiments will be followed by testing in the engineering lab. The end result of this exploratory work will be a process for subsequent development.

*4. Westinghouse Electric Corp.*

If the proposed 100-kilowatt coal-fed fuel cell described under A is successful, the next stage would be to build and operate a pilot plant unit. This unit would have a capacity of about 10,000 kilowatts. It probably would be constructed in a coal-producing area. It would be operated for a sufficient period of time to determine operating and design variables and to provide a firm basis for the construction by others of a full-scale commercial installation.

*5. West Virginia University (Project Methane Recovery)*

Work under this proposed contract would seek to determine an economically and commercially attractive method to recover free methane from coal seams prior to mining. The removal of the methane would permit safer, lower cost mining, provide a secondary mining product, and increase the Nation's natural gas reserves, and would provide a low-cost source for the hydrogen required in coal-conversion processes. OCR would seek to join it with the work of the Bureau of Mines in driving methane ahead of mining operations.

*6. Virginia Polytechnic Institute*

The work proposed is planned as an extension of coal mining operations research being performed under an existing contract with VPI. The present work is successfully developing formulas and models that permit simulation of lowest cost coal-production methods. The proposed contract would extend these novel techniques to cover the entire mining system, including power, transportation, ventilation, and coal cleaning, in order to bring about the lowest possible cost of coal delivered to the railroad car, pipeline terminal, or point of use.

Success of this project may lower the price of coal at the mine by several mills per million British thermal units and permit coal to expand its markets in major energy consuming areas.

*7. Parsons-Jurden, Inc.*

This proposal is closely related to the Southern Research Institute proposal. It would be an engineering study of the overall economics of the transportation of coal by pipeline, covering the use of both liquids (water and liquids derived from coal and petroleum) and gases (air, coal-derived gas, and natural gas) as the carrying medium. The final result would be a handbook of readily available data that would permit quick evaluation of economics and feasibility of any type of coal pipeline, located anywhere in the United States. The contractor also would make specific studies of the economics of coal pipelines in three actual locations: From the Kentucky-West Virginia coal area to the New York City areas; from the southern Illinois coal area to the Chicago areas; and from the Rocky Mountain coalfields to the southern California area.

This project is related to those other OCR projects concerned with the production of liquids and gases from coal, the fine grinding of coal, and the pro-

duction of low-ash coal. One way to get these products to competitive market is by pipeline. The results of this contract would provide a ready means of evaluating the factors required to connect, by pipeline, the various individual producers, processors, and users into an integrated economically feasible system.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $1,777,309 | $6,860,928 | $6,836,000 | −$24,928 |
| Unobligated balance brought forward | 113,237 | 1,785,928 | | +1,785,928 |
| Unobligated balance carried forward | 1,785,928 | | | |
| Appropriation | 3,450,000 | 5,075,000 | 6,836,000 | +1,761,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 186,738 | 249,000 | 260,000 | +11,000 |
| 12 Personnel benefits | 13,351 | 20,000 | 20,000 | |
| 21 Travel and transportation of persons | 9,455 | 21,000 | 21,000 | |
| 22 Transportation of things | 17 | 2,000 | 2,000 | |
| 23 Rent, communications, and utilities | 3,045 | 5,000 | 5,000 | |
| 24 Printing and reproduction | 2,314 | 6,000 | 6,000 | |
| 25 Other services | 1,547,196 | 6,535,928 | 6,500,000 | −35,928 |
| Service of other agencies | 9,600 | 12,000 | 12,000 | |
| 26 Supplies and materials | 2,948 | 5,000 | 5,000 | |
| 31 Equipment | 2,645 | 5,000 | 5,000 | |
| Total obligations | 1,777,309 | 6,860,928 | 6,836,000 | −24,928 |

Chairman HAYDEN. If you have a written statement, you may file it in the record; or you may read it, if you prefer.

Mr. FUMICH. Sir, I think you have our statement.

Chairman HAYDEN. You can file that for the record.

Mr. FUMICH. Yes, sir.

(The statement referred to follows:)

STATEMENT OF GEORGE FUMICH, JR., DIRECTOR OF COAL RESEARCH

Mr. Chairman and members of the committee, it is a pleasure to appear before this committee on behalf of the Office of Coal Research program and I welcome the opportunity.

As you may be aware, the Office of Coal Research was without a Director from May 1, 1963—when Mr. Lamb left—until I was sworn in on November 1, 1963. If the committee wishes, I shall review my previous background, otherwise shall simply make available, for the record, a copy of the Department's press release which was issued at the time I was sworn in my new appointment.

The Office of Coal Research has signed a total of 17 contracts. Five of these have been completed. Twelve are currently in effect. Three of these were signed in the present fiscal year. The projects which have been completed, as well as those that are current, cover problems on which the coal industry needs research assistance and answers—economics and marketing, exports, mining and preparation, combustion, conversion, liquefaction, and gasification. Future work on proposals presently in hand, and projected for contract during the remainder of this fiscal year and in fiscal year 1965, will undertake additional, nonduplicative efforts in further areas of marketing, gasification, conversion, transportation, mining, and preparation.

Negotiations and planning are well advanced on several additional proposals which may result in contract awards before the end of this fiscal year. Funding on existing contracts as well as requirements for those which we plan to execute during the remainder of the fiscal year will, we estimate, quite fully utilize available contract funds.

OCR continues to receive good proposals for desirable research work from research-oriented organizations possessed of some of the finest scientific research brains in the country. We continue to review, evaluate, and screen out for contract only those contracts which it is desirable to go forward on at this time within the limitation of available and projected funds.

As a result of foresight and responsible action by members of this body and the entire Congress, in establishing the Office of Coal Research, we believe that the whole climate for research on coal is changing. As a result of this program we are already witnessing a degree of interest in coal as a raw material source for a host of new products which must rival the fondest hopes that had been envisioned by the supporters of the legislation. It is true that some quarters still think of coal solely in its raw energy form. But a new concept is beginning to take shape, stimulated in no small measure by the contract activities of OCR. This new concept entails an active interest in coal as a commodity, which through a variety of processes, temperatures, pressures, and considerable scientific know-how, can be processed and manipulated in such a way that the secrets are being unlocked. We hope, through research, to develop these ideas to their fullest economic potential. In so doing, we believe that the objectives of the Congress and the administration will be served, and that the Nation will be able to add additional strings to its economic bow for the betterment of the coal industry and the economy as a whole.

Following is a listing of action taken or contemplated on proposals submitted to OCR by various organizations:

| Action: | *Proposals received* |
|---|---|
| Rejected | 199 |
| Withdrawn | 12 |
| To be evaluated | 9 |
| Under consideration | 35 |
| Contracts under negotiation | 6 |
| Contracts in operation | 12 |
| Contracts completed | 5 |
| Total | 278 |

It is noteworthy that OCR has nearly six times as many proposals under consideration as it has proposals being negotiated for contract. In addition to a tinue to be important elements in our consideration of proposals for contract: tinue to be impotrant elements in our consideration of proposals for contract: Coal tonnage potential; economics of process or product; cost of project; suitability of contractor's personnel and facilities; time schedule for completion of contract work; and the applicability of the work to be undertaken to other elements of OCR's total program.

We believe that OCR's arrangements with the Bureau of Mines are functioning more smoothly and with better understanding than ever. Through these working-level arrangements and frequent day-to-day contact between our respective staffs we seek to avoid any duplicative efforts in any contracts. We are also working closely with the Bureau on precontract evaluations to preclude and minimize subsequent problem areas.

The General Technical Advisory Committee has met three times in the past 6 months. And OCR is utilizing to a greater degree than before, the services of its very able technical panelists who represent a broad range of scientific disciplines. Through the use of the GTAC and these scientists we believe that it has been possible for OCR to achieve the benefit of viewpoints reflecting years of experience and scientific know-how resulting in substantial value to the Government in the form of best potential contracts as well as continuing evaluation of results on existing contracts to insure a dollar of research effort for every dollar spent.

The OCR staff is presently comprised of 20 individuals—11 professionals and 9 clerical. This is five below our ceiling. We believe it may be necessary to eventually ask for an expansion of present ceiling levels, but this is not contemplated in our fiscal year 1965 request. It shall be our continuing endeavor to operate our program and utilize our manpower in such a manner that will preclude any requests for additional staff until absolutely necessary. We believe that the increasing contract workload, and the ratio of administrative and supervisory costs in our budget to contract costs helps to bear out this position.

The brief descriptions of OCR projects which are currently under contract, as well as those which are under consideration for contract during the remainder of this fiscal year and projects planned for contract in fiscal year 1965 are shown in "justifications for appropriations."

If there are questions or clarifications that I or members of my staff can assist on we shall do our best to provide such information.

Thank you.

BUDGET AUTHORIZATIONS

As you know, we are asking for $6,836,000 for fiscal year 1965. This is an increase of $1,761,000 over fiscal year 1964 but is an actual decrease of approximately $25,000 compared with total funds available in fiscal year 1964.

As you know, this program was inaugurated in 1961. That year, we were authorized $1 million of which $200,000 was authorized for administration. We actually spent $60,000. So, to give you a percentage ratio of administration money to total obligations, it was 20 percent. However, the ratio of administrative expenditures to appropriations was only 6 percent.

The next year another million dollars was appropriated. We had a $940,000 carryover, and were authorized $225,000 for administration. Of this administrative money we actually spent $196,000. We had an administrative percentage ratio of aproximately 22.5 percent based on the total of appropriated funds plus carryover. However, the ratio of administrative funds expended as a percentage of total funds available was only 10.1 percent.

The next year we had an authorization of $3,450,000. We had a carryover of $113,000. Our administrative figure was $311,000. We actually spent $230,000. Our ratio that year was 9 percent.

In fiscal year 1964 we receive an appropriation of $5,575,000. We had a carryover of $1,786,000. We were authorized $325,000 for administration. We estimate that $300,000 of that may be spent so our administrative percentage ratio should come down to 6.3 percent.

As you see, we are asking for $6,836,000 in fiscal year 1965; $336,000 of that will be for administration which means the administrative ratio has come down to 4.9 percent.

I am trying to show that the administrative cost ratio has been reduced from a total of 20 percent in 1961 to 4.9 percent for fiscal year 1965. These are authorized funds and not funds actually spent because if we include the carryover funds the percentage comes down even more.

1965 PLANNED PROGRAM

Chairman HAYDEN. Would you set out for the committee the need for the increase in the 1965 budget estimate over the amount appropriated to you in 1964, which in itself was $75,000 more than last year's budget estimate? Why do you have to have $75,000 more?

Mr. FUMICH. Sir, the bulk of the funds will be needed for projects now in our program. Some of these projects are moving into the latter and more expensive stages. Even with the increase we will be able to include only a few new projects.

MORE MONEY NEEDED FOR THE PROGRAM

I consider the OCR program in the intermediate period now. It is costing money. A little later, these increments are going to be even larger and in order to carry the program through we are going to need more money because, in order to get new projects in the program and complete these other projects, it is going to mean an escalation upward.

PROPOSED FUNDS FOR PROJECTS

Chairman HAYDEN. If feasible, I believe that it would be well to insert in the record a table showing the amount of funds which you propose for each of the 21 projects listed on pages 8 through 18 of your budget presentation.

Mr. FUMICH. I could give you that right now.

Senator BYRD. Mr. Chairman, I suggest that he put into the record the table and let the Senators ask questions concerning whatever projects they have in mind. I don't think the committee has the time to listen to a long rigamarole of memorized statistics. If he will insert the table in the record, we can study it to our hearts' content.

Chairman HAYDEN. We will do that.

(The table referred to follows:)

*Contracts awarded by the Office of Coal Research*

| Date of award | Estimated, total cost | Contractor | Purpose |
|---|---|---|---|
| Aug. 4, 1961 (completed May 1962) (10 months). | $139,600 | Booz, Allen & Hamilton, Inc., Chicago, Ill. | To identify new products, which are economically and technically marketable, that would expand present coal markets and generate new ones. The study has been completed. |
| Oct. 5 1961 (completed October 1963) (24 months). | 170,000 | Bituminous Coal Research, Inc., Monroeville, Pa. | To study the preparation, transportation, and utilization of superfine pulverized coal. Specific objectives are (1) to develop systems for preparing pulverized coal with the removal of sulfur and ash content, (2) to devise continuous transportation systems from mine to factory, and (3) to design and operate boilers to burn superfine coal in continuous sequence with transportation systems. |
| Feb. 26, 1962 (36 months). | 164,185 | Pope, Evans & Robbins, New York, N.Y. | To design and develop a new, completely integrated, coal-fired industrial heating plant of intermediate-size range requiring minimum attendance and space, and with initial and operating costs considerably more favorable than existing coal-fired equipment. |
| Mar. 29, 1962 (30 months). | 750,000 | General Electric Co., Schenectady, N.Y. | To study the conversion of coal to gas liquid fuels and chemicals using electrical corona as the catalyst. |
| Mar. 29, 1962 (27 months). | 122,000 | Virginia Polytechnic Institute, Blacksburg, Va. | To develop scientific engineering methods and formulas for determining the most favorable combination of various elements in underground mining which can be controlled by the mine operator to insure lowest cost production under the physical conditions existing in his coal-producing sections or face areas. |
| Mar. 29, 1962 (completed (March 1963) (12 months). | 24,000 | Georgia Tech Research Institute, Atlanta, Ga. | To study the reactions which occur between pulverized coal and various gases at high temperatures, and to identify the products or compounds formed. |
| May 16, 1962 (30 months). | 1,121,000 | FMC Corp. (formerly Food Machinery & Chemical Corp.), Princeton, N.J. | To determine the possibility of deriving from coal a synthetic crude oil of a kind that, mixed with the residue (char), can be transported by pipeline. |
| May 16, 1962 (42 months). | 444,000 | The Ralph M. Parsons Co., Los Angeles, Calif. | To analyze the engineering and economic feasibility of a process owned by the Consolidation Coal Co., Pittsburgh, Pa., to convert coal into gasoline and to act as design consultants to OCR during pilot plant construction, operation, and evaluation. |
| Aug. 14, 1962 (30 months). | 139,140 | Board of Governors of West Virginia University, Morgantown, W. Va. | To determine and evaluate the economics of processing marginal byproduct materials closely associated with minable coal. |
| Aug. 22, 1962 (30 months). | 1,240,000 | Spencer Chemical Co., Kansas City, Mo. | To produce low-ash and low-sulfur coal through solvation techniques. |

*Contracts awarded by the Office of Coal Research*—Continued

| Date of award | Estimated total cost | Contractor | Purpose |
|---|---|---|---|
| Aug. 24, 1962 (36 months) | [1] $102,397 | University of Utah, Salt Lake City, Utah. | Bench-scale testing of the response of powdered coal in an electric arc, by flash photolysis, and in other reactions, toward recommending a final process for converting western coals into gaseous and liquid fuels. |
| Aug. 24, 1962 (completed December 1963) (16 months). | 26,000 | Endowment & Research Foundation, Montana State College, Bozeman, Mont. | To determine the yield and composition of liquid and gaseous products from bituminous coals. |
| Nov. 7, 1962 (completed September 1963) (12 months). | 86,000 | Robert R. Nathan Associates, Inc., Washington, D.C. | To study the coal export potential, identify the impediments to the full achievement of that potential, and recommend actions by Government and industry for expanding coal exports. |
| Dec. 5, 1962 (30 months) | 1,000,000 | Westinghouse Electric Corp., Pittsburgh, Pa. | To develop a fuel cell burning pulverized coal, a gas derived from coal, or a combination. End result will be construction and operation of a 100-kilowatt prototype cell system operated in conjunction with a connected dc load to provide engineering data required for the design of a commercial plant. |
| Aug. 30, 1963 (72 months) | 9,993,000 | Consolidation Coal Co., Pittsburgh, Pa. | Under this contract, a pilot plant will be designed to convert approximately 24 tons of coal per day into gasoline. The plant will be operated to determine the process and equipment alternatives which could enable a full-scale plant to be designed and built as a commercial venture by a private enterprise. The contract involves bench-scale research, design and construction of pilot plant facilities, and operation and evaluation of the pilot plant. |
| Nov. 12, 1963 (18 months) | 164,000 | Rand Development Corp., Cleveland, Ohio. | This contract will explore methods for utilizing coal to the treatment of sewage and industrial wastes. An attempt will be made to develop integrated processes utilizing fine-size coal. The use of coal as an adsorbent, settling agent, flocculent, and filter aid will be explored for the purpose of facilitating removal of sewage and industrial wastes from water and subsequent use of the heating values of the coal in treatment and removal of solids for incineration heat or steam generation. |
| Dec. 20, 1963 (36 months) | 975,000 | Bituminous Coal Research, Inc., Monroeville, Pa. | The overall objective of the contract is to develop equipment to produce gases suitable for process heat, as a source of hydrogen, or to mix with pulverized coal for pipeline transportation. It is anticipated that equipment can be developed ranging in size from small-scale use to very large scale applications, opening new markets to small, medium, and large coal producers. |

[1] Cosponsored, OCR 150,000, University of Utah

### South Dakota Lignite Project

Chairman Hayden. Will you please advise the committee of the South Dakota lignite project, indicating how much you have expended of the $375,000 made available for this project last year, when you expended it, and where?

Mr. Fumich. Sir, of the $375,000 that was authorized for that program, we have expended $10,000. We had four proposals that were submitted for project consideration. We had these particular proposals analyzed by the Bureau of Mines as well as by our own staff. They have recommended that we proceed with one of the proposals.

Chairman Hayden. Senator Mundt, did you want to ask a question?

Senator Mundt. If I may, because I have my TV program to do at

12. I don't have too many questions. We have covered this so many times, and I think we pretty well understand each other.

LIGNITE GASIFICATION PILOT PLANT

The project I am primarily interested in is the lignite gasification business. Last year you will recall that at my request our subcommittee added $375,000 to the Office of Coal Research budget. And the conference report directed $375,000 for planning and engineering a pilot plant in South Dakota for production of gas from lignite.

Now, we have been making some progress on this project. It hasn't been as fast as either one of us anticipated, but I wonder if you would bring us up to date as to just where we stand now.

Mr. FUMICH. Sir, as I stated previously, we received four different proposals based on the concept you had in mind. We had these proposals checked by the Bureau of Mines in their Morgantown Center as well as evaluating them in OCR. The Bureau checked these proposals and recommended one proposal as worthwhile to proceed on to a contract. We have expended $10,000 of the $375,000 that was authorized for the project.

Senator MUNDT. If you award a contract, will you require additional funding in fiscal year 1965 and, if so, how much?

FUNDING REQUIRED IF CONTRACT AWARDED

Mr. FUMICH. Yes, sir; if this contract is awarded, it will require $500,000 in additional funding for fiscal year 1965.

Senator MUNDT. Do you think you will finalize that contract before we get around to the markup of this year's budget?

Mr. FUMICH. I think there is a possibility but it would be hard to say.

Senator MUNDT. This would give you perhaps a month or 6 weeks?

Mr. FUMICH. Yes, sir.

Senator MUNDT. When will you be ready for the actual pilot plant design?

Mr. FUMICH. Sir, we estimate that that would be approximately 18 months from the date of the contract signing.

Senator MUNDT. And what is your estimation of what the total project will cost?

Mr. FUMICH. Sir, we have an estimate on that but I would prefer to give it to the committee confidentially.

Senator MUNDT. Will you send it up?

Mr. FUMICH. Yes, sir.

MERIT OF LIGNITE GASIFICATION PROJECT

Senator MUNDT. I have heard so many disturbing rumors that the lignite gasification project might be taking a back seat to other projects that you are working on or thinking about. Now, it is my opinion with regard to the merit of other projects that this one should stand on its own feet and we should try to make something out of these tremendous lignite resources. So, I am asking for the record if you are sure that this lignite program will go forward on its own without becoming secondary to some other project or involved with other projects so that the tail wags the dog, which I wouldn't like to see happen.

Mr. FUMICH. Sir, I have only been in the office for 3 months. I don't know what the basis was before that for the rumors, but I do know that we are pushing this as fast as we can. We are not trying to subordinate it to other projects.

Senator MUNDT. Any rumors which may be circulating are unfounded as far as your jurisdiction is concerned?

Mr. FUMICH. As far as my jurisdiction and as far as my personal knowledge is concerned.

Senator MUNDT. Thank you.

That is all, Mr. Chairman.

Senator HAYDEN. Also, would you bring the committee up to date on the increases provided by Congress for the Office of Coal Research in last year's bill?

LIGNITE AND PROJECT BOOTSTRAP

Mr. FUMICH. The $75,000 net increase, sir, was for the General Electric Project Bootstrap, lignite gasification, and alumina extraction. The net increase was small because there was a very sizable reduction in the amount appropriated for Project Gasoline compared to OCR's request. We are getting into an evaluation stage on Project Bootstrap the first part of this coming month. In fact, on March 3 and 4 we are going to evaluate the program. If it looks as good as we think it does we will go into the next stage. I don't want to mention what funds will be involved right now because I would rather submit that to the committee.

PROJECT GASOLINE

Also other funds that were mentioned in that particular category were for Project Gasoline. I'd better give the committee a little bit of personal history. I used to be an attorney for one of the subsidiaries of Consolidation Coal Co. That was before I joined the Office of Mineral Exploration as Director. Because of that past association, I would prefer to have one of the other members discuss that particular contract at the proper time.

Chairman HAYDEN. Do you have any questions?

Senator BIBLE. I have none.

Chairman HAYDEN. Anybody else?

Senator MCGEE. I have one, Mr. Chairman.

CONVERTIBILITY OF WYOMING COAL

Last fall, I was advised by the Office of Coal Research about the developments in this contract with Consolidation Coal Co. for a pilot plant in West Virginia in which we are all very much interested. I wrote the Department at that time expressing Wyoming's particular interest in that plant. As you know, our State is heavily underlaid with great deposits of coal. It used to be one of our very largest industries. Now southwestern Wyoming is an area of substantial unemployment because of the dieselization on the railroads and other factors that have reduced our coal operations. And so we are keenly interested in what comes from this pilot plant in West Virginia and would like to know from your office whether Wyoming coal, as we requested, would be utilized in the operation there in order to determine its convertibility.

Mr. FUMICH. Sir, my understanding is that it will be.

Senator MCGEE. Wyoming coal will be run through the plant?

Mr. FUMICH. Yes, sir.

Senator MCGEE. Do you have another plant affecting the State of Wyoming?

WESTERN COALS STUDY

Mr. FUMICH. Sir, at this time we are thinking about going into a western coals study. We believe that in order to really get some guidelines we should know where we are going, and then point our efforts in those directions. We have to walk before we can run. We will be getting into that particular phase in the very near future, sir. We have had two contracts dealing with western coals. One with the University of Utah and one with Montana State, both in the nature of research studies. We do think that after the particular economic studies that we are contemplating making in the near future we will have a better idea of what we can do and when.

PILOT PLANT PROJECTS FOR WYOMING

Senator MCGEE. You have a number of projects that you envisage for fiscal year 1965. I was looking over your list here. Naturally, we are very much interested in getting a pilot project in Wyoming because of the segment of our economy that once rested on coal and needs to return to a coal base if we are going to eliminate these rather substantial areas of unemployment. We have entire towns now wiped out as far as business activity is concerned. We have had no substantial replacement for particularly those family groups that were over the age of 40. They haven't moved into other areas. They are available for reemployment there and for that reason I am keenly interested in what your division is going to be doing in new pilot projects.

The State of Wyoming, through the university, should get pilot plant locations in some of our large coal areas particularly in the Southwest. This should be one of the target areas for your pilot plant considerations.

Mr. FUMICH. Sir, as I said, we are contemplating a western coals study.

Senator MCGEE. I am talking about Wyoming. I am not talking about the West in general right now.

Mr. FUMICH. As of now, we have no pilot plants projected for the State of Wyoming. I am talking about the very near future. Looking further than that, I wouldn't be able to say right now.

Senator MCGEE. I would like to have someone from your staff meet with my staff on this. Wyoming has much to offer, in my judgment, that ought to be brought into the focus of your pilot plant thinking as you are projecting in the next 2 or 3 years ahead.

Mr. FUMICH. Sir, I will be only too happy to come up at your convenience or your staff's convenience.

Senator MCGEE. As soon as you conclude the testimony that these hearings call for, we are ready and willing and waiting. We welcome the opportunity to visit with you.

Mr. FUMICH. Thank you, Senator.

Chairman HAYDEN. Senator Young.

RESEARCH IN LOW COAL ASH

Senator YOUNG. What is the status of your project research in low ash coal?

Mr. FUMICH. Sir, as you know, that contract with Spencer Chemical was originally signed for $1,240,000. As of right now, we have reached a point of decision. There is an evaluating committee leaving here tomorrow for Kansas City to look at the project first-hand, and we believe that they will have a decision within a month as to whether to proceed into a pilot plant stage, sir.

Senator YOUNG. Do you have any estimate as to whether you will need additional funds, if any?

PILOT PLANT STAGE WILL REQUIRE ADDITIONAL FUNDS

Mr. FUMICH. Sir, if we do go into a pilot plant stage, we estimate we will need roughly an additional million dollars.

Senator YOUNG. Mr. Chairman and members of the committee, this is a sample of liquid coal. They have been taking the ash out of it and it was poured into this container at a rather low temperature.

RESEARCH ON LIGNITE COAL

Have you conducted any research on lignite coal along this line?

Mr. FUMICH. Yes, sir; it is my understanding they have received some good results.

Senator YOUNG. What use can you make of this kind of research or this kind of a product?

Mr. FUMICH. Sir, if that product can be produced competitively, it may have future use in utilities in large cities with a problem of air pollution. It will also mean fuel for coal-fired turbines. It will mean that the blade corrosion and wear and tear problem will be largely solved because of the low ash content of the coal. The product would also find a market as electrode carbon in certain areas of the West. We think that there are widespread areas of possible use if this project is successful.

Senator YOUNG. How much is the British thermal units content in that sample of coal?

Mr. FUMICH. Could you give him that?

Mr. COCHRAN. About 15,000 British thermal units per pound, sir, on that particular coal, if it is the sample I think. I don't know where you obtained it.

Senator YOUNG. From Spencer.

BRITISH THERMAL UNIT CONTENT OF LIGNITE COAL

Mr. COCHRAN. Apparently almost any coal treated in this fashion emerges from the process with a British thermal unit rating exceeding 30 million a ton. This includes lignite. Almost all of them are independent of the source of coal. Once it has been treated, the material emerges at something in excess of 15,000 British thermal units a pound.

Senator YOUNG. You take out the ash and the sulfur?

Mr. COCHRAN. Yes. The ash is practically nil in that sample. The sulfur is reduced very substantially.

Senator YOUNG. Do you plan to do some work in lignite coal?

Mr. COCHRAN. We have done some work in the lab and in the process development plant. We have instructed the contractor to run lignite along with some other materials.

Senator YOUNG. How much additional funds did you say would be necessary, a million dollars?

Mr. FUMICH. Approximately a million dollars, sir.

Senator YOUNG. Are you spending more on research in lignite coal in addition to this particular project?

FURTHER RESEARCH PLANNED

Mr. FUMICH. That particular project would be a part of that. But we plan further efforts in the lignite field; yes, sir. The only way we can have a well-rounded program is to go into all these areas across the spectrum.

Senator YOUNG. That is all, Mr. Chairman.

Chairman HAYDEN. I think the way the situation is now we have a vote in the Senate to attend to.

Can you come back at 1 o'clock?

Mr. FUMICH. We can come back at any time.

Chairman HAYDEN. I suggest we recess now and return at 1 o'clock.

(Whereupon, at 12 o'clock noon, the hearing recessed, to reconvene at 1 p.m. the same day.)

(AFTERNOON SESSION, 1:15 P.M., WEDNESDAY, FEBRUARY 26, 1964)

Senator BYRD. The subcommittee will be in order.

## OFFICE OF COAL RESEARCH

**STATEMENT OF GEORGE FUMICH, JR., DIRECTOR, OFFICE OF COAL RESEARCH; ACCOMPANIED BY G. EDWARD LARSON, CHIEF, CONTRACTS AND ADMINISTRATION DIVISION; NEAL P. COCHRAN, CHIEF, UTILIZATION DIVISION; WAYNE P. McCURDY, CHIEF, MINING AND PREPARATION DIVISION; AND IRVING ZUCHERMAN, ASSISTANT CHIEF, ECONOMICS AND MARKETING DIVISION—Resumed**

THE 1961 APPROPRIATIONS

Senator BYRD. Mr. Fumich, how much was appropriated for the Office of Coal Research for the fiscal year 1961?

Mr. FUMICH. $1 million, sir.

Senator BYRD. How much of this was obligated?

Mr. FUMICH. None of the $1 million was obligated for contracts; $60,000 was spent for administrative purposes.

Senator BYRD. $60,000 was spent. This left a carryover for fiscal year 1962 of how much?

Mr. FUMICH. $940,000, sir.

Senator BYRD. Where did you get your figure of 20 percent as being the administrative ratio?

Mr. FUMICH. Well, that was 20 percent of the $1 million which was authorized for administration. It would have been less than that

if we had figured it on the basis of $1 million as compared to the $60,000 actually spent.

Senator BYRD. So as compared with the money actually spent what was the administrative ratio?

Mr. FUMICH. It was about 6.3, sir.

Senator BYRD. Are you sure of your figures. Are you sure that is right, 6.3?

Mr. FUMICH. Actually it figured out to 6 percent.

THE 1962 APPROPRIATIONS

Senator BYRD. Now, for the fiscal year 1962 you had a carryover of $940,000. How much was appropriated?

Mr. FUMICH. We signed contracts during 1962 for a total of $2,944,000.

Senator BYRD. How much was appropriated in the fiscal year 1962?

Mr. FUMICH. $1 million again, sir.

Senator BYRD. So with the $940,000 carryover you had a total of $1.94 million.

Mr. FUMICH. That is right, sir.

Senator BYRD. And how much did you obligate?

Mr. FUMICH. We signed eight contracts for a total of $2,944,000, but actually obligated only $1,631,000 in fiscal year 1962 against those eight contracts.

Senator BYRD. And how much was spent for administrative expenses?

Mr. FUMICH. That year we spent $196,000.

Senator BYRD. Which would constitute what percent?

Mr. FUMICH. Approximately 10.1 percent.

Senator BYRD. 10.1 percent of what?

Mr. FUMICH. 10.1 percent of the $1,940,000 total funds available in fiscal year 1962.

Senator BYRD. What did you have as a carryover?

Mr. FUMICH. We had a carryover of $113,000 from fiscal year 1962 to fiscal year 1963.

Senator BYRD. How much was appropriated in fiscal year 1963?

Mr. FUMICH. That year we had $3,450,000 appropriated, sir.

Senator BYRD. So the appropriation plus the carryover made how much?

Mr. FUMICH. $3,450,000 plus the $113,000, $3,563,000.

THE 1963 APPROPRIATIONS

Senator BYRD. $3,563,000 was your total money for fiscal year 1963, is that right?

Mr. FUMICH. Yes.

Senator BYRD. What percent was used for administrative costs?

Mr. FUMICH. We had $300,000 authorized but we were also given $11,000 for pay raises, making a total of $311,000 that we had actually available. But we only spent $230,000 for administrative expenses.

Senator BYRD. What percent would this constitute?

Mr. FUMICH. That would be about 6.4 percent.

Senator BYRD. 6.4 percent of what?

Mr. FUMICH. That would be 6.4 percent of the $3,450,000 plus $113,000 of carryover, plus the $11,000 for pay raise costs, as against the $230,000 actually spent for administration, one total against the other.

Senator BYRD. So $230,000 constitutes 6-point-plus percent of $3,563,000, is that right?

Mr. FUMICH. Yes, sir; $3,450,000 plus $113,000, and $11,000 additional that we had for increased pay raise costs. That would be $3,574,000 we have here.

Senator BYRD. And the $230,000——

Mr. FUMICH. Actually spent?

Senator BYRD. Actually spent.

Now, what did you have carryover from that year?

THE 1964 APPROPRIATIONS

Mr. FUMICH. The next year, which is this year actually, fiscal year 1964, we had $1,786,000 carryover in round figures from fiscal year 1963. And also for our formally authorized budget $5,075,000 was appropriated for fiscal year 1964.

Senator BYRD. Making a total of how much?

Mr. FUMICH. $6,861,000.

Senator BYRD. And for fiscal year 1964?

Mr. FUMICH. Yes, sir. That is the total available for fiscal year 1964.

Senator BYRD. How much of this have you obligated thus far?

Mr. FUMICH. We have obligated approximately $4,680,000.

THE 1965 REQUESTED APPROPRIATIONS

Senator BYRD. What is your request for fiscal year 1965?

Mr. FUMICH. We are now requesting $6,500,000 for program, and $336,000 for administration and supervision, making a total of $6,836,000.

Senator BYRD. How many persons do you have on the staff?

Mr. FUMICH. Twenty, sir.

Senator BYRD. What is your ceiling?

Mr. FUMICH. Twenty-five. We have 11 professionals and 9 clerks and secretaries.

Senator BYRD. How long have you had 20?

Mr. FUMICH. Since approximately late last summer. It was before I arrived.

PROJECT BOOTSTRAP

Senator BYRD. Suppose you tell the committee what the status of Project Bootstrap is?

Mr. FUMICH. As you know, that contract was signed originally for $750,000. We were very much interested in it. We have spent $605,000 on that particular project. We are now at a point of decision. We are going to have an evaluating committee go up to Schenectady on the 3d and 4th of March to evaluate the project on the premises to see whether we should go ahead. We think the project has merit, and that is the reason that we are going through with this evaluating procedure.

Senator BYRD. How much has been spent on this project thus far?

Mr. FUMICH. $605,000, sir.

Senator BYRD. And how much has been allocated by the Congress for this project?

Mr. FUMICH. We had $750,000 originally, and we have $750,000 this fiscal year. And we are also requesting $750,000 for fiscal year 1965.

PILOT PLANT

Senator BYRD. When do you anticipate making a decision concerning a pilot plant for Project Bootstrap?

Mr. FUMICH. If the next stage goes forward we estimate that it will take approximately 12 months for us to get all of the answers nailed down. That would mean that within 6 months, starting from the date the contract is signed, we should be able to make a decision concerning a pilot plant.

Senator BYRD. So what date are you pinpointing?

Mr. FUMICH. Approximately September.

Senator BYRD. Of this year?

Mr. FUMICH. Yes, sir; if we assume that the evaluating committee's finding is affirmative at an early date, and that we can then promptly negotiate and sign the contract provisions which will permit continuing the work.

Senator BYRD. Mr. Lamb on February 28, 1962, appeared before this subcommittee, and I questioned him about Project Bootstrap. I said: "Mr. Lamb, you spoke of a contract you had hoped to have signed by today, is that right?"—today being February 28, 1962.

Mr. Lamb said:

Yes, that is right, sir. We had hoped to have another one when we appeared before this committee today.

Senator BYRD. Are you prepared to testify on the work to be done on this contract?

Mr. LAMB. Yes. This contract is highly promising from the standpoint of increasing the proposed market, and this is a project which I discussed with you, Senator, on several occasions.

Senator BYRD. Will this necessitate the construction of some type of pilot plant?

Mr. LAMB. Yes, it will. The first phase, of course, is the preliminary research. The second one would be the design of the equipment and the processing method. The third would be the pilot plant.

Senator BYRD. In which stage are you now, Mr. Fumich?

COMPLETED FIRST STAGE

Mr. FUMICH. Sir, we are nearing completion of the first stage, and we plan to go into the intermediate stage—the process development stage—if this evaluation procedure comes up in the affirmative.

Senator BYRD. What you are saying is that you are still in the first phase?

Mr. FUMICH. Yes, sir.

Senator BYRD. You have to await the decision which presumably will follow the trip on March 3 and 4 before you determine that you are going into the second stage; is that correct?

Mr. FUMICH. Yes, sir.

COST TO FIRST STAGE

Senator BYRD. So what has been the cost of the project up to this point again?

Mr. FUMICH. $605,000, sir.

Senator BYRD. And how much additional cost are you already committed to?

Mr. FUMICH. We originally signed a contract for $750,000, sir.

Senator BYRD. And that is the total amount?

Mr. FUMICH. Yes, of the original contract.

Senator BYRD. To which you remain committed.

Mr. FUMICH. That is right, sir.

Senator BYRD. Do you think that will be sufficient to carry you through the first phase?

Mr. FUMICH. The first phase; yes, sir.

SECOND PHASE

Senator BYRD. And the second phase would be the design of the equipment and the processing method; is that correct?

Mr. FUMICH. That, and also to get into a little larger reactor unit, and to operate such process development equipment. In other words, things have been working well so far, but it is not a big enough prototype to really give us a good story.

Senator BYRD. I continue to extract from the hearings of this committee on the bill making appropriations for the fiscal year 1963:

Senator BYRD. How far away would the third stage be?

Mr. LAMB. Well, it is proposed that the construction of the pilot plant will start within 3 years. The planning and so on might start in maybe 2 or 3 years.

Senator BYRD. Do you consider this to be a vital project to the coal industry?

Mr. LAMB. I think it is one of the better projects before us.

STATUS OF SCHEDULE

Senator BYRD. Now, Mr. Lamb at that time—which was 2 years ago almost to the day—indicated that the construction of the pilot plant would start within 3 years. "The planning and so on might start in 2 or 3 years." Would you say that you are ahead of schedule, behind schedule, or on schedule?

Mr. FUMICH. He said 3 years. I would say that we are approximately on schedule, sir.

Senator BYRD. You would say that within 3 years of February 28, 1962, the construction of the pilot plant would start?

Mr. FUMICH. Well, I stated that we are nearing completion of the preliminary stage now. The decision on the committee's evaluation should be coming up within a week or 10 days. That would mean that we can then proceed with execution of the necessary contract documents and that from the date of such execution the next stage would take approximately 12 months. We would within that time, within approximately 6 months, start working on the design and development of the pilot plant itself. And the next stage would take approximately 12 months. So generally giving or taking a few months it would seem that we would be into the pilot plant stage sometime after a year from the time that we start the next stage, sir.

Senator BYRD. So Mr. Lamb's prognostication that construction would begin within 3 years of February 28, 1962, which would be February 28 of 1965, more or less is still a true prognostication as far as you are concerned?

Mr. FUMICH. Unless we have unforeseen trouble, sir. I am just going by our schedule now.

Neal, is that about right?
Mr. COCHRAN. Yes, sir.

LOCATION OF PROPOSED PILOT PLANT

Senator BYRD. I proceeded in this way during those hearings:

Senator BYRD. Would this proposed pilot plant be located in low volatile or high volatile coal regions?

Mr. LAMB. Well, it should be located at a point central to the mining fields and near a principal place of coal mining. Now, you mentioned the low volatile coal and that appears centrally in the eastern Appalachian areas. That would be one of the central regions; that is correct.

Senator BYRD. By way of my own information, how does the area from which I come, my hometown being Beckley, located in Raleigh County, which is the heart of the "black diamond" area—how would that area fit into this proposed pilot plant that you envision?

Mr. LAMB. That is an area that is right in, you might say, the central part of the Appalachian field, eastern Appalachian field. It should be ideal for the location.

PROGRESS OF PROJECT BOOTSTRAP

Now, Mr. Lamb appeared before this subcommittee during hearings on the fiscal year 1964 appropriations bill, which precisely was on Tuesday, March 5, 1963. He said with reference to Bootstrap:

On the progress of Bootstrap we have a contract with the General Electric Co., and the progress has been very good. On this project we are now looking toward pilot plant operations.

PROJECTS INVOLVING CONSTRUCTION OF PILOT PLANT FACILITIES

I asked Mr. Lamb this question:

Now, how many projects would involve the construction and erection of pilot plant facilities and the acquisition of land therefore?

Mr. LAMB. Under our present program, there are 11 projects which may eventually involve construction and erection of pilot plants and perhaps the acquisition of land.

Senator BYRD. Would you care, Mr. Lamb, to identify these 11 projects in the OCR programs which may eventually require pilot plant erection and construction and land acquisition and identify these for which funds are to be obligated during fiscal year 1964.

PROJECT BOOTSTRAP

Mr. LAMB. There is only one for 1964; it is Project Bootstrap. There are some other projects we have for which perhaps equipment would be purchased during fiscal year 1964, but the erection and construction would get underway probably in 1965, fiscal 1965.

Senator BYRD. So only 1 of the 11 would be in the category of activities which would require pilot plant erection and construction in 1964, and that would be Project Bootstrap, is that correct?

PROJECT GASOLINE

Mr. LAMB. Well, Senator, there may be some modification and I might amend this answer, maybe another project; namely, Gasoline, for which equipment in 1964 should be included but there is some question yet as to whether there be construction involved.

Has equipment, Mr. Fumich, been purchased for Project Gasoline?
Mr. FUMICH. I would have to refer that to Ed Larson.
Senator BYRD. Mr. Larson.

ARCHITECTURAL ENGINEERING ON PILOT PLANT

Mr. LARSON. Senator, we have purchased some equipment, but only laboratory scale equipment at this point. We have not yet reached the point where we have purchased any equipment that would eventually be installed in a pilot plant. What we have done on Project Gasoline so far is this. The contractor began his work on the date the contract was signed, August 30 last year, and has proceeded with full speed ahead in the laboratory. We think we are getting some outstanding results already. And the contractor has prepared specifications, detailed scope of work, and so forth, which have been sent out to a number of companies in order to solicit proposals for the architectural and engineering work on the pilot plant.

BIDS REQUESTED

And I understand—correct me if I am wrong, Mr. Cochran—we have received two favorable responses from the companies that are willing to come in in response to the solicitation. And I think Consol is seeking two more, because in the initial go-around I think they sought solicitations from five companies. Three responded in the negative and said they weren't interested. Two responded in the affirmative and will come in with formal proposals, and Consol is now going out to at least two more before they sit down and begin to evaluate the proposals that have then been received and then enter into formal negotiations.

That is about where we stand on it at the present time.

Senator BYRD. So you feel that you are moving ahead nicely on Project Gasoline?

Mr. LARSON. Very good. We think that it is on schedule, given the kind of delay that occurred over a 2-year period that you are familiar with between the time of receipt of the original proposal and the time we actually entered the contract.

PROGRESS ON PROJECT BOOTSTRAP

Senator BYRD. Now, in continuing my interrogation of Mr. Lamb I asked this question:

**But there is no question as to the progress that has been made in connection with Project Bootstrap and as to the desirability of your moving ahead with pilot plant construction in fiscal year 1964.**

**Mr. LAMB. That is correct. We are in a position to go ahead on the pilot plant activity.**

What comment would you have on Mr. Lamb's response to my question?

Mr. FUMICH. Sir, I would say, as I stated previously, we estimate that we will be considering the pilot plant as of September. So that would make it fiscal year 1965, sir. But it will still be within the 3-year projected period that he mentioned previously.

PILOT PLANT PHASE

Senator BYRD. Mr. Lamb at that time said, "We are in a position to go ahead on the pilot plant activity." And here we are a year later,

and you are still not into your second phase, which must precede your third phase which is the pilot plant phase as I understand it.

Mr. FUMICH. Neal, would you have any answer to that question?

Mr. COCHRAN. Senator, about a year ago the thought was that we would enter into a pilot plant program that would embrace two portions, the first part of which Mr. Fumich has described to you. These things would proceed somewhat concurrently as he has indicated. And this would remain our plan. I think that with respect to the testimony from a year ago, we are still consistent with that, at the same time maintaining the posture of being quite certain before we proceed that we in fact do have something as good as we think it is.

Mr. FUMICH. In other words, we are using different words, aren't we?

Mr. COCHRAN. Yes.

SCHEDULING OF PHASES

Mr. FUMICH. What he is talking about is the contract that would decide the pilot plant phase but also include the intermediate stage phase. But we were trying to separate them and project the time that way. What he was saying was that the pilot contract would be signed this way, and work would be going concurrently, but what would be going on would be the intermediate phase, and then the discussions of the pilot plant phase would start in around September. So actually the scheduling is the same. I was frankly just talking about it one way and he was describing the same thing in another way.

Senator BYRD. Now, if the processes prove to be feasible can you once again give the committee a pretty definite idea as to when the office would be prepared to launch the pilot plant construction?

CONSTRUCTION

Mr. FUMICH. Sir, like I said, we are nearing the end of this stage, and we are at a point of evaluation. We think we will get to a decision within a period of about 10 days, which means that we would start the next phase soon, so it would be 12 months from the signing of that next phase contract before the possible construction of the pilot plant could begin. In the meantime, when that period has 6 months to go, say, around September 1964, that is when we would be going into the activity concerning the pilot plant itself, moving beyond the process and development stage.

Senator BYRD. Precisely what do you mean by the activity concerning the pilot plant?

Mr. FUMICH. That would be the time for a decision to move into the design and development phase of the pilot plant itself.

Senator BYRD. And this would you envision for about September 1 of this year?

Mr. FUMICH. Yes, sir, that is as close as we can estimate it. It will be about 6 months after we begin work on the process development phase.

Senator BYRD. The design of the pilot plant?

Mr. FUMICH. Yes. To move into the design phase of the pilot plant itself, if we can get the contract signed soon on the process development phase.

Senator BYRD. And you would further anticipate that by March or April of 1965 you would begin construction on the pilot plant?

Mr. FUMICH. That would be our projected date, sir, if we can keep to our timetable on the preceding steps.

ESTIMATED CONSTRUCTION COST

Senator BYRD. Continuing with the reading of portions of the testimony during these hearings I asked this question:

**What would be the amount of money needed for the construction and erection of the pilot plant in connection with Project Bootstrap together with planned costs in fiscal year 1964?**

Mr. Lamb answered thusly:

**For the construction item, we estimate that it would take about $200,000, since this would be the preliminary work, and we estimate it would take about $10,000 for land acquisition.**

What would you estimate the construction item to be, Mr. Fumich, and the land costs as well?

Mr. FUMICH. We have certain figures for what the next phase would cost, sir. I would rather not divulge those at a public hearing. We will submit them to the committee.

As far as the land is concerned, I think, based on my talks with Mr. Cochran, it would be around at least 40 acres for a pilot plant. We cannot cite what the cost will be; we have never really gone into that, but he can see nothing wrong with these particular figures, sir.

Senator BYRD. What do you think of Mr. Lamb's estimate of the construction item? He said that it would take about $200,000?

Mr. FUMICH. For the construction of what, sir?

Senator BYRD. The construction of the pilot plant, Project Bootstrap.

Mr. FUMICH. Our figure is somewhat larger than that, sir.

Senator BYRD. Your figures are considerably higher?

Mr. FUMICH. Yes, sir. We can submit them to the committee.

LAND REQUIRED

Senator BYRD. And you think it would require about 40 or 50 acres of land for the pilot plant?

Mr. FUMICH. Just an approximation. Yes, sir.

Senator BYRD. At the time Mr. Lamb was before the committee last year he indicated that the total cost of Project Bookstrap would be about $5.2 million. Does this figure hold true in your estimation?

Mr. FUMICH. Sir, again if I agree with that estimate, then we are projecting what our thinking might be toward what the contract cost might be, and we would rather give you our point of view on that figure confidentially, sir.

Senator BYRD. Now, a statement appears on page 598 of last year's hearings which may clarify, to some extent, the question concerning the cost of the pilot plant for Project Bootstrap. I stated that I noted the total cost of Project Bookstrap was $5.2 million. And I asked Mr. Lamb this question:

**What part of this total sum, Mr. Lamb, would be spent on pilot plant erection and construction?**

Mr. Lamb answered by saying:

We estimate that about $2 million would be spent on pilot plant erection and construction through fiscal 1968. Most of all this money would go for the purchase of equipment. Assembly of the equipment and its erection or putting it into place.

ESTIMATED COST OF BUILDINGS

I then asked the question:

How much of the $2 million would be needed for buildings?

Mr. Lamb answered by saying:

Well, probably 10 or 15 percent we spend on building to provide for offices, shop, or laboratory space.

Senator BYRD. You are saying between $200,000 and $300,000 would be needed for buildings?

Mr. Lamb answered by saying:

That is correct.

Senator BYRD. And the remainder would be needed for equipment?

ESTIMATED COST OF EQUIPMENT AND INSTALLATION

Mr. LAMB. Most of the remainder of the $2 million would be needed for equipment and its installation.

I asked the question:

Would General Electric plan and design and construct this pilot plant, Mr. Lamb?

And Mr. Lamb answered by saying:

Well, properly it is expected that the design will be started by General Electric by next June, that is, once we get the intention of the contract completed, construction would be then underway by late this year or early the next year.

Senator BYRD. So apparently the schedule is a little behind, insofar as it was envisioned at that time by Mr. Lamb.

Mr. FUMICH. You mean so far as the pilot plant is concerned, sir?

Senator BYRD. Apparenty he said construction would be underway by late this year.

Mr. FUMICH. I think what he was referring to was that the contract for the pilot plant and intermediate stage would be gone into this year. If that were the case, we would be on time. On the other hand, if he literally meant what he said, then we are behind in that particular schedule, sir.

PLACING OF CONTRACT FOR CONSTRUCTION

Senator BYRD. I quote these extracts from last year's hearings:

Senator BYRD. You would contract with General Electric for the construction of the plant.

Mr. LAMB. Yes, this is an extension of the present work.

Senator BYRD. Is this still the plan, then, Mr. Fumich?

Mr. FUMICH. Yes, sir. But I would have to—possibly not differ, but I think that in the design and development of the pilot plant stage we are going to have to have a lot to say as far as that particular item is concerned. It won't be a completely one-party situation, let's put it that way.

Senator BYRD. I then proceeded to ask this question:

When do you anticipate the plant's being in operation?

And I think we got a pretty firm answer to this.

Mr. LAMB. Well, the plant as completed—part of it would start pretty soon but the complete plant would probably be in operation by January 1965.

How do you view this date with reference to the schedule that you are on?

Mr. FUMICH. I would say we would have to start moving pretty fast, sir, to be honest about it.

DATE PLANT BEGINS OPERATING

Senator BYRD. Mr. Lamb indicated that the complete plant would probably be in operation by January of 1965.

Mr. FUMICH. I would rather not eat my words and say we would have it done at that time; I might as well be realistic and say that we are projecting a time area around that particular date, but I would frankly rather not commit myself and say that we are going to have a pilot plant in operation by January 1965. We are going to try our best, and I know that we are not going to delay anything, and we will go as far as we can with this particular project. And we believe, as I stated, that we have a good opportunity to have this thing in operation possibly in the spring of 1965 rather than in January of 1965.

Am I making an optimistic statement there, Neal?

Mr. COCHRAN. I think it is overoptimistic.

Mr. FUMICH. Let's be realistic. I don't want to say something and then not live up to it.

Senator BYRD. Based on your earlier statement that you would anticipate the beginning of construction by March of 1965, when do you think that you could have the plant in complete operation?

EVALUATION AND CONTRACT NEGOTIATIONS

Mr. FUMICH. It would take—let me get my projections together to make sure I am saying what I am thinking—as I said, we are nearing the point of completion on the preliminary stage as of right now. We are going to get into an evaluation as of the 4th and 5th of this coming month; actually it is next week. I honestly believe that a decision will be forthcoming within a week or so. From there we plan to go into the signing of another contract. How long this negotiation is going to take I don't know. But I don't see why we should have too much trouble, since we have already reached a lot of points of agreement on the current contract. So it won't be negotiating de novo again; it will be going on with the same item just a little bit advanced.

Then from the time we start the actual work on that phase we estimate that it will take 12 months from there until we get to the pilot plant stage. Of course, we plan to telescope the process development work and our design activity to run concurrently to stay within the September 1, 1965, estimate I mentioned previously. Now, that would be from March—it would be March of 1965. Allowing 2 or 3 months for negotiating—I still come back to my projection, in about the spring or early summer of 1965.

Mr. COCHRAN. Except that you haven't allowed time to build it.

Mr. FUMICH. I see. I am just going into the designing and starting.

PROJECT BOOTSTRAP APPROPRIATIONS

Senator BYRD. You will note that Mr. Lamb said that the complete plant would probably be, he didn't say it would be, he said it would probably be in operation by January 1965. What I am trying to determine here is just how slow we are in getting this thing on the road. I have gone to bat for this project in two successive years. In fiscal year 1961 you were appropriated $1 million. You spent about $60,000. That was before you were Director. And then, the next year you were appropriated an additional million dollars, and you had a carryover of $940,000. And the next year, which was fiscal year 1963, I offered an amendment in committee to add $450,000 to Project Bootstrap, based on Mr. Lamb's testimony that the project could go forward more expeditiously, and that this money could be economically and feasibly utilized.

I offered the amendment to add $450,000, and the amendment was adopted, and the House concurred in the amendment.

And in addition to that amendment, I offered an amendment to add $1 million for Project Gasoline in fiscal year 1963.

So instead of the $2 million which you would have had without the two amendments I offered, the Office of Coal Research had $3,450,000.

Of course, not only was the appropriation thereby increased for that particular year, but as a result the base was also increased for the next year.

PILOT PLANT PROGRESS

Now, last year when we had Mr. Lamb before this committee I again queried him about the progress of Project Bootstrap. And he stated that the complete plant would probably be in operation by January 1965. Now, today we are told by the Director of the Office of Coal Research that the construction will probably begin on the pilot plant around March or April of 1965. Now, how long do you anticipate it will take to complete the construction of the pilot plant once the construction is begun?

Mr. FUMICH. Mr. Cochran, would you answer that question, please?

Mr. COCHRAN. I would estimate it would take 6 to 9 months, sir.

Senator BYRD. So if you begin in March or April of 1965 you would anticipate having the pilot plant completed in January of 1966?

Mr. COCHRAN. Correct.

Senator BYRD. I proceeded to question Mr. Lamb in this way:

Now, I referred a little earlier to my amendment to include $450,000 for Project Bootstrap last year. Has this $450,000 been fully utilized or has it helped to accelerate the progress toward the construction of a pilot plant facility?

ACCELERATING CONSTRUCTION PROGRESS

Mr. LAMB. This money has accelerated the laboratory work and the activity toward the design of equipment and the preliminary plans for a pilot plant.

This additional $450,000 of fiscal year 1963 funds plus the $500,000 as is requested for this project in fiscal year 1964 should provide adequate funds for getting the pilot plant underway.

EQUIPMENT DESIGN

Has any equipment been designed in connection with Project Bootstrap?

Mr. FUMICH. Mr. Cochran.

Mr. COCHRAN. Yes. I don't know any way to answer it, Senator, except at a little length.

During the spring of this past year the General Electric Co. projected what a commercial plant might look like. And from this commercial plant, or to price out this commercial plant, it presented us with preliminary designs of what the equipment itself would be like. We have the drawings. And based on this it submitted a proposal for the pilot plant work during this past year.

So that preliminary designs of the special machinery for a commercial plant and its pilot plant prototype—the idea would be to use one unit out of what might be a multiple-unit commercial plant, which has been reduced to drawings which are now completed. We are still doing experimental work, but in general the design of the equipment is specified, and the unit laid out. So the answer is "Yes."

Senator BYRD. Has Mr. Lamb's prognostication been borne out by the facts wherein he said that this additional $450,000 of fiscal year 1963 funds plus the $500,000 as was requested for this project in fiscal year 1964 should provide adequate funds for getting the pilot plant underway?

Mr. FUMICH. Sir, we believe that we don't need any more funds based on the funds that we now have available and what we are asking for in fiscal year 1965. We should have ample funds to keep this project moving the way it should.

### FUNDS AVAILABLE

Senator BYRD. How much do you have now?

Mr. FUMICH. Well, we had $750,000 plus another $750,000. We also have $750,000 in the fiscal year 1965 budget that we are asking for. We will have about $1,500,000 combining this year's funds with what we are asking for in fiscal year 1965.

Senator BYRD. How much are you asking for in fiscal year 1965 for Bootstrap?

Mr. FUMICH. $750,000, sir.

Senator BYRD. $750,000. And how much do you have to add to that in carryover moneys?

Mr. FUMICH. About the same; $750,000. However, it should be noted that if we sign the contract for the process development phase we will obligate the $750,000 available in fiscal year 1964. Therefore, there would be no carryover into fiscal year 1965.

Senator BYRD. About the same amount?

Mr. FUMICH. Yes.

### BOOTSTRAP PROJECT EXPENDITURES

Senator BYRD. And how much have you spent thus far on Bootstrap?

Mr. FUMICH. Approximately $605,000.

Senator BYRD. You spent $605,000. You have about $750,000 carryover, and you are requesting $750,000?

Mr. FUMICH. Yes, sir; with the exception I just mentioned if we get the additional contract work underway.

Senator BYRD. To which point will this bring you? Will this carry you through the complete construction of the pilot plant, or will it get the pilot plant underway?

Mr. FUMICH. It will get the pilot plant underway, sir. It will take much more than that to complete the pilot plant.

Senator BYRD. So a year ago Mr. Lamb said that an additional $500,000 appropriated for the project in fiscal year 1964 when added to the carryover should provide adequate funds for getting the pilot plant underway. Now, you are saying today that with the carryover moneys of $750,000 and with $605,000 already having been spent you still need $750,000 to get the pilot plant underway.

Mr. FUMICH. I think, sir, that is partly semantics. When we say "getting underway," we think we would be able to carry it further toward fruition than what Mr. Lamb is referring to, because we haven't spent any more money than was originally contemplated as far as the stages are concerned. And that is the only explanation being given, that we would take the project further along than what we have; than what he was referring to at the time he testified.

### PILOT PLANT LOCATION

Senator BYRD. Continuing with my references to Project Bootstrap, I said to Mr. Lamb:

Last year, in offering the amendment to include an additional $450,000 for Project Bootstrap, and in developing the testimony during the hearings in connection with Project Bootstrap, it was my impression that the pilot plant for Project Bootstrap could be most advantageously located in the southern part of my State, and more specifically in the Beckley area.

Mr. LAMB. That is correct.

Senator BYRD. Do you think I was correct in getting this impression from the testimony?

Mr. LAMB. I believe you were, sir.

Senator BYRD. Is it fair for me to continue to assume that the pilot plant can or at least may be located in the Beckley area?

Mr. LAMB. Yes. I can't make the final decision on location, but as I stated last year, Beckley would be one of the better locations, one of the best locations you could find because of it being the center of the Appalachian coal mining area.

Senator BYRD. Perhaps this is not a fair question, but Beckley, being one of the favorable locations, or one of the best, as you say, "Is it fair to assume that the company with which you are contributing would not have any objection to locating the pilot plant in the Beckley area."

Mr. LAMB. None that I know of. I know of no objection.

Senator BYRD. In a situation of this kind can the Office of Coal Research, or perhaps I should say the Department of the Interior, indicate to the company with which you have the contract as to where the Department wants the pilot plant located.

### DEPARTMENT OF THE INTERIOR AUTHORIZED TO PASS ON PLANT LOCATION

Mr. LAMB. The Department has the authority to tell or to pass on the pilot plant location; that is correct, sir.

Senator BYRD. Well, I have assumed, beginning with last year, that this pilot plant, if the processes prove to be feasible leading up to the planning and construction of the pilot plant, would be located somewhere in the Beckley area, and I would like to proceed under that continuing assumption.

Mr. LAMB. Yes, sir.

Do you have any comment, Mr. Fumich?

Mr. FUMICH. Sir, I can go along generally with what has been stated, although you know of course the Secretary of the Interior, as contracting officer, makes the final decision on that, sir.

Senator BYRD. I would like to state for the record that I have assumed, beginning with the year before last, and I am continuing to assume that this pilot plant will be located somewhere in the Beckley area, as was indicated by the OCR during hearings for fiscal years 1963 and 1964.

DELAYS IN PROJECT BOOTSTRAP PROGRESS

Are you satisfied with the progress to date on Project Bootstrap?

Mr. FUMICH. Sir, at least since November 1 I am satisfied that we haven't done anything to hinder it. And as far as the contractor is concerned, I think that we have had very good cooperation. And frankly I see no reason for any delays ahead.

DELAY OF PILOT PLANT BEGINNING OPERATING

Senator BYRD. I realize that there is a good deal to what you say about semantics. There may have been some misunderstanding as to the precise meaning which Mr. Lamb placed on his words. However, I think it is to some extent discouraging to note that the committee was led to believe that the pilot plant would be in complete operation by January of 1965. And according to today's testimony, it seems that this date will be extended by about 1 year, to January 1966. I have supported this project. I am quite sure that no one on the committee would dispute my statement when I say that had I not offered the amendment for $450,000 in fiscal year 1963 for Project Bootstrap, and the amendment last year adding $1 million for the three gassification projects, to say nothing of the $1 million amendment which I offered in behalf of Project Gasoline the year before last, these moneys would not have been included in the Office of Coal Research budget.

I don't think there would be any refutation of that statement coming from any member of this committee.

EXPECT SCHEDULES TO BE MAINTAINED

I am very interested in the progress of coal research. I suppose I am the only member on the committee who represents an area the economy of which is so vitally based upon the coal industry. And I just want you to understand, Mr. Fumich, that while my interest cannot be surpassed in this matter, I do expect schedules to be kept, if they can be kept. I realize that you can't always foresee what the outcome of test tube experiments and bench scale work might be, and you can't foresee precisely the date when you can award a contract. Many of these things are unpredictable. I know that. But at the same time I don't want to continue working hard for appropriations for coal research unless we can see that we are really making substantial progress and that we are staying pretty much on schedule.

Mr. FUMICH. Would you mind if I made a comment on that statement?

Senator BYRD. I would be glad if you would, yes.

Mr. FUMICH. I understand your interest, sir, and that is one reason I was very cautious in making projections on the future of this particular project. I wanted to make very sure that if I am around next year, and if we are not on schedule I will know why we are not on schedule. But I didn't want to try to be very favor-

able in some of my comments here just to get off the hot seat when I knew that they weren't true. I thought it would be better to come up with some very realistic estimates to try to live by so that we can still keep them in the event that we have some unforeseen delays in some aspects of the program.

Senator BYRD. I congratulate you, Mr. Fumich, in responding to my questions on this basis. I think we have to be conscientious and sincere in our approach to this thing on both sides of the table.

Now, you spoke of a decision having to be made following the dates of March 3 and 4. Who will make this decision?

COMMITTEE OF EXPERTS MAKING DECISIONS

Mr. FUMICH. Sir, we have a departmental ad hoc committee, and depending upon the type of project it is, whether it is to convert coal to gas and oil, we recommend maybe two or three persons with expertise in that field to join our chief of the Utilization Division and others who compose the committee. They go out and check the technical aspects as well as all the other considerations, and make a recommendation back to us, sir.

We only do this where we go into a large financial increment or where we are going into a hardware stage, sir.

Senator BYRD. Suppose the $750,000 request for fiscal year 1965 is not forthcoming, what will this do to your time schedule?

Mr. FUMICH. If we proceed on schedule with everything else, frankly, it is going to slow us up, sir.

Senator BYRD. So you have to have the $750,000?

Mr. FUMICH. Yes, sir.

Senator BYRD. Will that be sufficient? Can you effectively utilize more money than that?

Mr. FUMICH. I don't think so, sir, to be honest about it.

Senator BYRD. In connection with Project Bootstrap I would ask our faithful and competent clerk to request that representatives of the General Electric Co. appear before this subcommittee on March 6 and testify.

PROJECT GASOLINE

Now, turning our attention to Project Gasoline, do you feel that Project Gasoline is proceeding on schedule, Mr. Larson?

Mr. LARSON. Senator, I think that Project Gasoline is on schedule. The delays that have been encountered thus far were encountered in the precontract period, and now that the contract has been signed we are on schedule. I hope and trust that we will stay on schedule. And I think right now there is every indication that we will.

Senator BYRD. Do you have any uncertainties at this point concerning the processes that are involved in the success of this research project?

Mr. LARSON. I think that so far as the processes are concerned, on the technical details Neal Cochran is much more able to answer than I. But from my own knowledge and the reports that the contractor has rendered to our office thus far on a monthly basis, and my reading of them, I think the chances of its success are very good.

Senator BYRD. Mr. Cochran, would you like to add something?

PROGRESS

Mr. COCHRAN. I would say, compared to the original schedule, from the date of signing the contract, that we are a little ahead timewise. The areas of uncertainty concerning the process are being investigated now. And the results so far have been favorable. And if anything I would have to say that the process is better—I would guess today the process is better than we thought it was when we undertook the contract.

ADVANCE IN CATALYST TECHNOLOGY

Mr. LARSON. Senator, I would point out at this juncture that the contractor has made what we believe to be a rather significant advance in catalyst technology on this project, or this process. We feel that this could have a very pointed effect on the ultimate end product cost. If the process reaches the commercial stage, this will, of course, be extremely important.

However, since this development of the catalyst process was reported to the Office of Coal Research for patent consideration, we don't want to get into the precise details. It looks very good.

1964 APPROPRIATION FOR PROJECT GASOLINE

Senator BYRD. In questioning Mr. Lamb about Project Gasoline I asked, "What funds were included in the 1954 budget?"

Mr. Lamb excused himself, of course, from answering the questions as did Mr. Fumich, and rightly so.

Mr. Lasky answered, "2 million dollars. That would allow first for a continuation of bench-scale operation and for completion of engineering and design work on the pilot plant. The major part of the estimate is for longtime load items of equipment to be installed in the proposed pilot plant."

As you know, the House struck this item last year. I spoke on behalf of its restoration in the committee, urged that it be restored, moved that it be restored, and it was restored. How much of it has been spent, as Mr. Lasky indicated would be the case, for the long leadtime items of equipment to be installed in the proposed pilot plant?

PLANNED PROCEDURE FOR PROJECT GASOLINE

Mr. LARSON. As I stated earlier in response to a question, the contractor has not actually ordered equipment at this time. We think that we will reach that point as soon as the contractor has received responses to the design solicitation proposals, and eventually negotiate and settle on a design organization. Once that organization completes its designs, and we then proceed to the pilot plant construction phase but before construction actually begins—and I will ask Neal if he will bear this out in further testimony—we will know the kind of equipment that must go into the pilot plant which is eventually constructed. We will then begin ordering on a long leadtime basis those items of equipment.

Neal?

Mr. COCHRAN. I have to change that a little bit, Senator, I am sorry. The plan which was laid down subsequent to these hearings, and as a result of the change in appropriation, the approach to the project,

the timing of how it went and the way it was handled was modified to fit the funds which were made available. As a result of that, rather than proceeding exactly as Mr. Lasky had indicated, we would now proceed through design, and then execute a construction subcontract for the construction of the entire pilot plant.

CHANGING CURRENT PLANNING

And this was done to make the planning of the project fit the funding of the project. But we have now wrung out all possibility of changing or modifying the plan, if the project is to proceed, with respect to the appropriation needed for the next year; for fiscal year 1965.

Senator BYRD. Would you repeat that, the last sentence?

Mr. COCHRAN. The plan for the project has been changed two or three times to suit the appropriation which was made available to the Department for this particular project. So that we have accommodated the planning for the project to fit the funding. Now, we can no longer change or modify this without adding years on to it each time you do it—I won't say it is completely impossible, but we do not believe that we can now adjust the plan to accommodate any further reduction in the money which is needed, the amount Mr. Fumich indicated is on hand for this year, coupled with the budget request for this particular project for next year.

In other words—I don't recall the testimony with certainty—but the pilot plant is going to cost on the order of $3.5 million based on the contract estimate. And this amount of money must be available to the contractor if he is to subcontract for the construction of the entire plant, or we can't have the contractor let the subcontract.

I trust this answers your question.

AUTHORIZATIONS AND EXPENDITURES FOR PROJECT GASOLINE

Senator BYRD. How much has been spent on Project Gasoline up to this point?

Mr. LARSON. We obligated $2,300,000 when we signed the contract. This was the amount of funds that the Congress had made available.

Senator BYRD. How much money over and above the obligated amount do you have for Project Gasoline?

Mr. LARSON. We have obligated everything that was earmarked for Project Gasoline, and everything that the Congress had intended us to earmark for it initially.

BUDGET REQUEST FOR 1965

Senator BYRD. And you have how much in this budget request for Project Gasoline?

Mr. LARSON. In the fiscal year 1965 request we have $2.5 million. But of the $2.3 million that we actually obligated, we have actually expended about $202,000 to date. We are estimating the expenditure of approximately $1 million by June 30 of this year, which would include, we estimate, the subcontract for the design phase of the pilot plant work, plus the additional bench-scale work that will occur between now and June 30. This will give us approximately $1,300,000

of carryover into the next fiscal year on the money available for this contract.

So when we couple the $1,300,000 of carryover with the $2,500,000 that we are asking for, we would have $3,800,000 next year. Then as you have just heard Mr. Cochran say, we are still sticking with our estimate of approximately $3,500,000 for construction of the pilot plant. The overage of $300,000 above that would be for the continuing bench-scale effort that would be going on even while the pilot plant is under construction. This, we think, is ample, and should meet our needs for the next fiscal year.

SCHEDULE IF REQUESTED FUNDS DENIED

Senator BYRD. If the requested amount of $2.5 million for Project Gasoline should not be forthcoming, what would this do to your schedule?

Mr. LARSON. We think, sir, that this would cause us to slow down the project. Again referring to the testimony that Mr. Cochran just gave you, the contractor, at the time he signs a construction subcontract, should have in hand all of the moneys necessary to sign this subcontract and pay for its cost, whatever that cost may be.

Senator BYRD. Can you effectively utilize more money than is involved in this request?

Mr. LARSON. I would say, sir, it would be probably a slight amount to expedite the bench-scale effort that will be continuing while the pilot plant phase is on. Any moneys that would be made available for the project would simply mean that much less that would be required in the future because, as you are well aware, we have a "no year fund" arrangement. These funds would simply carry over, and if we would allocate these funds for this particular program, we estimate that they would be spent in the next year.

TOTAL CONTRACT COST

Senator BYRD. What is the total contract cost?

Mr. LARSON. The total contract amount is estimated at $9,993,000.

Senator BYRD. Is this pilot plant still being planned for location at Cresap?

Mr. LARSON. Yes, sir; that is written into the contract.

PILOT PLANT CONSTRUCTION

Senator BYRD. Will Consolidation Coal build the pilot plant?

Mr. LARSON. No, we think that this will be subcontracted to a construction subcontractor.

Senator BYRD. Is there a target date as to when construction will begin?

Mr. LARSON. Neal, what is your thinking on that?

Mr. COCHRAN. I would say about a year from date, sir, give or take some small period of time.

Mr. LARSON. Early calendar 1965.

Senator BYRD. Has the site been selected?

Mr. LARSON. Yes, sir. This is also stipulated in great detail right in the body of the contract.

SITE SELECTION

Senator BYRD. Referring back to Project Bootstrap, when do you think a site will be selected?

Mr. FUMICH. Sir, I would visualize a site being selected just about the time we start thinking about going into the pilot plant research, we would be thinking about it at about that time, sir.

Senator BYRD. So that would be about September of this year?

Mr. FUMICH. I would say something like that.

Senator BYRD. About the time you begin your design?

Mr. FUMICH. Yes, sir. That would mean that we would be going concurrently with the other part of the project so that we wouldn't delay it.

COAL GASIFICATION PROJECT

Senator BYRD. Now, if we may refer to the coal gasification project, I asked Mr. Lamb about the potential awards on coal gasification, which at that time involved Bituminous Coal Research, Inc., M. W. Kellogg, and I believe the American Gas Association. I asked him whether or not there would be any duplication of activities in the performance of those three potential contracts. He indicated there would be no overlapping or duplication.

I asked if the three projects involved pilot plant construction and operation.

PILOT PLANTS

Mr. Lamb answered by saying:

Yes. Each project will involve pilot plant construction and operation carried to completion.

One of the potential contractors, the M. W. Kellogg Co., would engineer the three projects to keep them coordinated.

I asked:

What would be the earliest, Mr. Lamb, that you would anticipate the pilot plant's construction could begin?

Mr. Lamb answered by saying:

Well, based upon our proper budget estimate it would be perhaps around January 1965 before we could start on pilot plant construction.

I asked whether or not he was talking of all three projects.

Lamb answer by saying:

Yes; all three as far as pilot plants are concerned.

COST OF GASIFICATION PROJECTS

I asked what the overall 1964 fiscal year estimates for the three gasification projects happened to be.

Mr. Lamb said:

The budget estimates for the three projects amount to $650.000.

I asked this question of Mr. Lamb:

Would you need any additional money in fiscal year 1964 to get the gasification pilot plant underway in the fall of 1963?

Mr. Lamb answered in this way:

Yes; we could get the pilot plant started as early as that, because the American Gas Association and Kellogg have done a great deal of background work already and they are in a position to get right into pilot plant design, so the

start of the pilot plant work could begin as early as the start of the fall of 1963 if funds were available.

I then asked the question:

How much additional funds would be necessary to reach this goal?

Mr. Lamb said:

We need about another $1 million in addition to the $650,000 to get the pilot plant activities started.

I offered an amendment in subcommittee to add the $1 million, and the House conferees accepted it in conference, I being one of the Senate conferees.

So the money was advanced on the proposition that pilot plants would be started in the fall of 1963.

What is your batting average on this one?

PROGRESS ON PROJECTS

Mr. FUMICH. Sir, I would have to say we have a very low batting average on that one. My understanding is that there wasn't much progress during the last year. I can only answer it as of November 1. I do know that we signed the BCR contract for a total of $975,000. We will obligate $350,000 this fiscal year for that project. We are also asking $350,000 in fiscal year 1965 for this particular project.

Now, concerning IGT and the Kellogg contract, I can give the committee the figures confidentially after the hearing of what we expect the total will be. We are now negotiating with IGT and Kellogg on their respective projects. We expect, and we hope, to sign these particular contracts before this fiscal year is over. As I say, we are in the process of negotiating. We plan to obligate $200,000 apiece for each one of these contracts this fiscal year. We are also asking for $350,000 for BCR next year, $400,000 for IGT, and $500,000 for Kellogg.

Now, whatever the timetable evidently was that Mr. Lamb was talking about we would have to project possibly the same timetable beginning from the date we sign these contracts. Because frankly we are just getting into these things, and we hope to sign them as quickly as possible.

CONTRACT NEGOTIATION

Mr. Larson here has been conducting the negotiations. He might be able to give you a little more detailed information than I can.

But like I said, we are hoping that we can get these contracts signed in this fiscal year, and we are asking money next fiscal year to continue them.

Senator BYRD. Mr. Larson.

Mr. LARSON. Senator, I would say, in defense of the position that Mr. Fumich has just laid out that, as you are aware, we were without a Director from May 1 up until early November, and certainly this covers the first full 4 months of the new fiscal year, and we were almost at a dead standstill.

Senator BYRD. You think this impeded progress?

Mr. LARSON. I am sure it did, sir. And very shortly thereafter we signed the BCR contract, which is the first part, or one-third of the total gasification trio that we talked about here.

KELLOGG CONTRACT

Negotiations are well along on the Kellogg contract. We had originally hoped to have the Kellogg people down for a final negotiation this week on Friday. And they are now going to delay it until next week on Friday, because one of the key members of our staff, namely, Mr. Cochran, is going to be out of the city, Friday, and early next week as well.

This being the case, we will not enter into final negotiation with Kellogg until next weekend. But I would hope that very shortly thereafter we will have a signed contract to proceed on Kellogg.

But we are not waiting only for that contract to be signed, because negotiations are also proceeding with IGT, which is the research arm of the American Gas Association which you mentioned earlier. We have held preliminary negotiations with IGT already, and we are waiting for additional figures and data to come in from IGT which we asked them for and which they promised to send. We will then revise the contract into a new draft, and we will plan to have a negotiation with IGT again at an early stage looking for contract signing there as quickly as possible.

I am certain that with good fortune we will have the Kellogg one signed before the end of March, and I am hoping the IGT one very shortly thereafter.

OPINION OF GENERAL TECHNICAL ADVISORY COMMITTEE

Mr. FUMICH. For your additional information, we brought these particular projects up before the General Technical Advisory Committee, since they were meeting anyway. They were highly enthusiastic about all three. It is a package that fits together and the three projects complement each other rather than representing any duplication.

Senator BYRD. How much carryover total do you have on these three projects from last year?

Mr. LARSON. Since we just signed BCR, sir, we only obligated $350,000 to BCR, and they have barely begun their work. Nearly all of that money that was obligated is still available, and all the money that was on hand for Kellogg and IGT is still available, and I would guess this to be a total of about $700,000.

Senator BYRD. So you would have a total of $700,000 carryover?

ANTICIPATED CONTRACT SIGNING

Mr. LARSON. Well, we expect to sign these contracts this year so it won't be carried over.

Senator BYRD. So you are going to utilize the $1 million in a very effective and economical way?

Mr. LARSON. Yes, sir; we believe so. And again we will say that the delays, to the extent that there have been any, will have occurred in the precontract stage. Once the contract is signed there should be no delay on the contractor's part.

Senator BYRD. So although Mr. Lamb's prophetic statement did not materialize, to wit, that pilot plant activities would be underway in the fall of 1963, the work of this committee in appropriating an additional $1 million over and above the budget request last year was not indeed love's labor lost?

Mr. FUMICH. We don't think so, sir.

LOCATION OF GASIFICATION PROJECT PILOT PLANTS

Senator BYRD. Now, I asked Mr. Lamb this question:

Would you envision the pilot plant activity in connection with all three of these gasification projects being located at the same site?

Mr. Lamb said:

This could be done with advantage. There would be an advantage in bringing all three together.

It also could be of advantage if this could be done in the coalfields and at a location that is central to a number of different kinds of coal that are easily available for testing purposes.

Senator BYRD. So if all could be located in the same area, this would be ideal, would it?

Mr. LAMB. I think this is true, sir; because one project complements the other and you would have them together at one site, and you would have one company coordinating all activity. This would be a real advantage.

Mr. FUMICH. I have no reason to refute that statement, sir.

Senator BYRD (reading):

Senator BYRD. It is the desire of the Office of Coal Research, then, to locate the three in the same area?

Mr. LAMB. This would be the ideal plan. That is correct, sir; locate the pilot plant activity at a single pilot plant location.

Is it your position, Mr. Fumich, that this would still be the view of the Office of Coal Research, that it would be advantageous to locate all three in one complex?

Mr. FUMICH. That is my information, sir.

Senator BYRD. Is there any indication as to where this complex would be located?

(Discussion off the record.)

SITE DETERMINATION

Mr. FUMICH. Sir, we haven't come to any conclusion as to the actual site. I understand that Kellogg has space. But frankly the plans haven't been projected that far yet.

Senator BYRD. Now, Mr. Fumich, in summation would you state for the record the anticipated dates in connection with Project Bootstrap which will constitute milestones in the progress toward completion and operation of the plant.

Mr. FUMICH. Yes, sir; I can.

PROJECT BOOTSTRAP

As I stated previously, the preliminary stage is nearing completion as of today. We are now proceeding with an evaluation of the particular project, which will take place by a committee on which our chief of utilization is a member. That committee will go to Schenectady on the 4th and 5th of March. And we assume that the deci-

sion will be forthcoming within a week or 10 days after that. If the decision is favorable, we should then be able to proceed quickly to the next contract stage.

We think that the work that has been going on has been highly satisfactory. That is one reason we are going through with this evaluating procedure.

PILOT PLANT CONSTRUCTION

Then from the time the next phase starts we would project another 12 months from that date. In other words, 12 months from the time the next phase would start we would think about a pilot plant construction phase. But within that period, or 6 months within that period, possibly by next September, we would also start concurrently with the next phasing into the design and development stage of a pilot plant so there would be no lost time or lost motion. Just about at that time we would also start seriously considering a plant site, sir.

Senator BYRD. And this would mean that as of about March or April 1965 the actual beginning of construction of the pilot plant would get underway.

Mr. FUMICH. I would say within that particular area of time, sir. I would rather not come out and say it is going to be March or April. I would say in that vicinity of time we think that this thing will take place.

Senator BYRD. And it will require approximately 1 year to complete the pilot plant once construction was begun?

Mr. FUMICH. Yes, sir.

Senator BYRD. Which would be around March or April of 1966?

Mr. FUMICH. Around March or April of 1966. These are the timetables that we are estimating now, sir.

TOTAL COST OF PROJECT

Senator BYRD. Did I ask you what the total cost of Project Bootstrap is contemplated to be?

Mr. FUMICH. Yes, you did, and I am willing to give you that information immediately, sir.

(Discussion off the record.)

Senator BYRD. Did you indicate what the total cost of Project Bootstrap would be?

Mr. FUMICH. We could give you that information immediately, sir, but we would rather give it confidentially.

Senator BYRD. Would you be able to supply this for the record by the time we wrap our——

Mr. FUMICH. We can do it right now, sir.

Senator BYRD. For the record?

COST FIGURES AND NEGOTIATIONS

Mr. FUMICH. We don't want it in the public record. We don't want to prejudice the negotiations. What we would rather do, sir, is to give it to the committee but keep it off the record. We can give it to you in writing. We don't want the contractor to know what we think this is going to cost, because if he does it prejudices our negotiations.

Senator BYRD. Would you supply that to Mr. Eaton, the committee clerk, so that we might have it for use in marking up?

Mr. FUMICH. Yes, sir.

Senator BYRD. And did you make some reference earlier to some additional figures that you preferred not to have in the public record?

Mr. FUMICH. That is the next stage, sir.

Senator BYRD. Would you supply those in the same manner in writing so that we will have some record of them for the committee's use?

Mr. FUMICH. Yes, sir.

Depending on your time, we do have a projector here, we could give you some slides just to show you how our program ties together. I know time is of the essence, but if you do have the time——

Senator BYRD. I am 40 minutes late in chairing another subcommittee. But I appreciate the offer to show these slides to the subcommittee.

I may want to go over this transcript and then submit additional questions to you in writing, if I see some loose ends.

I think you have made a good statement, and I congratulate you on your desire to be factual and candid with the committee.

Mr. FUMICH. Thank you, sir.

### SUPPORT FOR OFFICE OF COAL RESEARCH

Senator BYRD. I know you will understand my reasons for wanting to get into this in a very thorough way, because as I have already indicated, I am extremely interested, and could not be otherwise. I feel that I have carried the ball for the Office of Coal Research on this committee, and I think the record will show it. I want to feel that in so doing I am being supported by the Office of Coal Research. I also want the record of the Office of Coal Research to be such that I can continue to support the requested appropriations in this committee and to continue to support amendments, adding moneys over and above the budget request if such amendments seem to be justified.

Mr. FUMICH. I appreciate your position, sir.

Senator BYRD. And I think it is important that we tie in last year's testimony with this year's so that we can see where we have been and where we are now and where we are going.

Do you have anything else?

Mr. FUMICH. No, sir.

Senator BYRD. Mr. Larson?

Mr. LARSON. Nothing special.

Senator BYRD. Mr. Cochran?

Mr. COCHRAN. No.

Senator BYRD. Thank you very much, sir.

The subcommittee will stand in recess until 10 a.m., Thursday, February 27, 1964, at which time the subcommittee will hear the Fish and Wildlife Service.

(Whereupon, at 2:40 p.m., Wednesday, February 26, 1964, the committee adjourned, to reconvene at 10 a.m., Thursday, February 27, 1964.)

# DEPARTMENT OF INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1965

THURSDAY, FEBRUARY 27, 1964

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, D.C.*

The subcommittee met at 10 a.m., pursuant to recess, in room 1223, New Senate Office Building, Hon. Carl Hayden (chairman) presiding.

Present: Chairman Hayden, Senators Bible, Byrd, McGee, Bartlett, Mundt, and Young.

## DEPARTMENT OF THE INTERIOR

### FISH AND WILDLIFE SERVICE

#### OFFICE OF THE COMMISSIONER

### STATEMENTS OF MR. CLARENCE F. PAUTZKE, COMMISSIONER OF FISH AND WILDLIFE; MR. DONALD L. McKERNAN, DIRECTOR, BUREAU OF COMMERCIAL FISHERIES; MR. DANIEL H. JANSEN, DIRECTOR, BUREAU OF SPORT FISHERIES AND WILDLIFE; AND MR. CLEO F. LAYTON, ASSISTANT DIRECTOR FOR ADMINISTRATION, BUREAU OF COMMERCIAL FISHERIES:

#### 1965 BUDGET REQUESTS

Chairman HAYDEN. The committee will be in order.

Mr. Pautzke, we will take up the Fish and Wildlife Service first. There will be placed in the record the statements in justification of an appropriation request of $393,000 for fiscal year 1965 for salaries and expenses of the Office of Commissioner of Fish and Wildlife. This is an increase of $7,000 over the amount appropriated last year. The increase is due to the necessity to provide for increased pay costs for fiscal year 1964 positions.

(The statement referred to follows:)

#### SALARIES AND EXPENSES

#### HIGHLIGHT STATEMENT

In accordance with the provisions of the Fish and Wildlife Act of 1956, the Commissioner provides supervision of the activities of the two Bureaus of the Service through coordination and review of programs from the standpoint of policy direction and management improvement; provides an information, education, and safety facility; and carries on liaison of the Service with the Assistant Secretary for Fish and Wildlife. The Commissioner also acts as the U.S. Govern-

ment representative at international meetings of the International North Pacific Fisheries Commission and the International Pacific Salmon Fisheries Commission, and participates in other international, national, and local conferences of fishery and wildlife interest.

*Office of Information.*—The Office of Information is responsible for the conservation education program of the Fish and Wildlife Service, serving both the Bureau of Sport Fisheries and Wildlife and the Bureau of Commercial Fisheries, through the issuance of publications, informational and educational materials, audiovisual aids, and the dissemination of research and technical data through all media.

Public interest in the fish and wildlife resources of the United States, and the growing use of visitor facilities at the Nation's fish hatcheries, wildlife areas, and scientific facilities indicates the need for a sustained conservation education program.

*Office of International Relations.*—This Office is concerned with international interests, activities, and policies of the Fish and Wildlife Service. In both the commercial fisheries and wildlife fields, there are major international problems.

Fish and wildlife resources of growing importance for food and recreation, have been propelled to the forefront as an international problem and as an economic asset to the Nation. The increased exploitation of fish and wildlife resources by nationals of many nations has greatly augmented the need for international conservation measures. Larger and larger amounts of time are being required in international consultation and negotiation, and in meetings with industry leaders and organizations. Much of this activity is in the political realm of policymaking to obtain proper consideration for fish and wildlife interests and to plan a total national program of greatest benefit to the Nation.

*Office of Program Review.*—This Office has staff responsibility for coordination and review of Service programs and legislation. Bureau programs are reviewed primarily from the standpoint of policy direction and management improvement. The Office also conducts and coordinates a servicewide safety, health, and fire prevention program directed at the reduction of personnel injuries, property damage loss through accidents, tort claims, and inefficiencies arising from unsafe conditions and unsafe acts.

*Salaries and expenses*

| | |
|---|---|
| Appropriation, 1963 | $364,000 |
| Supplemental appropriation, 1963 | 10,450 |
| Total available, 1963 | 374,450 |
| Appropriation, 1964 (total available) | 386,000 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | |
|---|---|
| Salaries and expenses: To provide for increased pay costs for fiscal year 1964 positions (net increase, 1965) | 7,000 |
| Budget estimate, 1965 | 393,000 |

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 | | |
|---|---|---|---|---|
| | | Total appropriation | Transfers [1] | Amount available |
| Departmental expenses | $374,116 | $386,000 | | $386,000 |
| Unobligated balance lapsing | 334 | | | |
| Total | 374,450 | 386,000 | | 386,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*Analysis by activities*—Continued

| | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Departmental expenses | $374,116 | $386,000 | $393,000 | +$7,000 | +$7,000 | |
| Unobligated balance lapsing | 334 | | | | | |
| Total | 374,450 | 386,000 | 393,000 | +7,000 | +7,000 | |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*Departmental expenses.*—The estimate for 1965 is $393,000, an increase of $7,000 over 1964. This increase is for pay costs.

*Plan of work.*—The Office of the Commissioner will continue to provide general supervision of the programs of the Bureau of Sport Fisheries and Wildlife and the Bureau of Commercial Fisheries to insure the carrying out of the objectives of the Fish and Wildlife Act of 1956. The estimate will provide necessary funds for operation of the Office and the cost of general administrative services rendered by the Bureau of Commercial Fisheries on a reimbursable basis.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $374,116 | $386,000 | $393,000 | +$7,000 |
| Unobligated balance no longer available | 334 | | | |
| Appropriation | 374,450 | 386,000 | 393,000 | +7,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 272,081 | 287,935 | 295,000 | +7,065 |
| 12 Personnel benefits | 19,140 | 22,000 | 22,000 | |
| 21 Travel and transportation of persons | 22,769 | 22,000 | 22,000 | |
| 22 Transportation of things | 151 | | | |
| 23 Rent, communications, and utilities | 9,394 | 8,000 | 8,000 | |
| 24 Printing and reproduction | 16,446 | 17,800 | 17,800 | |
| 25 Other services | 8,791 | 10,065 | 10,000 | −65 |
| Services of other agencies | 8,200 | 8,200 | 8,200 | |
| 26 Supplies and materials | 13,240 | 9,000 | 9,000 | |
| 31 Equipment | 3,904 | 1,000 | 1,000 | |
| Total obligations | 374,116 | 386,000 | 393,000 | +7,000 |

## Past Activities and Future Plans

Chairman Hayden. The committee will be glad to receive your statement, either by highlighting the activities of the Fish and Wildlife Service during the past year and your plans for the future year, or by your reading your written statement into the record.

Mr. Pautzke. With your permission, I would like to submit the written statement for the record and make a few comments, if I may.

Chairman Hayden. That will be fine.

(The statement referred to follows:)

### Statement by Clarence F. Pautzke, Commissioner, U.S. Fish and Wildlife Service

Mr. Chairman and members of the committee, the estimate for "Salaries and expenses, Office of the Commissioner," for the fiscal year 1965 is $393,000, an increase of $7,000 over 1964. The increase is for increased pay costs.

The Office of the Commissioner continues to provide general supervision of the Bureau of Sport Fisheries and Wildlife and the Bureau of Commercial Fisheries

to insure the carrying out of the objectives of the Fish and Wildlife Act of 1956. Organizationally, in addition to the Commissioner's immediate office, there is an Office of International Relations, an Office of Information, and an Office of Program Review.

The Office of the Commissioner has major responsibilities in connection with international fishery and wildlife matters. International cooperation in the conservation of marine fishery resources, international competition for these resources, the rights of American fishermen on the high seas, and the competition in domestic and foreign markets offered by foreign fishery products are matters which affect virtually all of our important fisheries. The increased importance of fish and wildlife and their involvement in the world economic and strategic tensions has resulted in an ever-growing volume of work.

The astounding growth of foreign fisheries and their exploitation of waters traditionally fished by American fishermen raise new conservation problems as well as pose difficult economic problems for American fishermen. Expanding Soviet fisheries in the Northwest Atlantic; expanding Soviet and Japanese fisheries in the North Pacific; the appearance of Soviet fishing vessels in the Gulf of Mexico are causes for concern on both counts. Not only are we faced with the need for new or improved mechanisms for insuring the conservation of heavily exploited resources off our coasts, but also we have the new problem of insuring that the appearance of these highly efficient foreign fleets does not result in driving U.S. fishermen from traditional grounds. At the same time, we continue to be confronted with the problem of maintaining longstanding U.S. fisheries in distant waters in the face of claims by foreign governments to exclusive jurisdiction over those waters.

The Commissioner and his staff participate actively in the formulation and implementation of policy relating to these problems. The Commissioner, himself, is a member for the United States of two international organizations—the International North Pacific Fisheries Commission (Canada, Japan, and the United States) and the International Pacific Salmon Fisheries Commission (Canada and the United States); and his staff provides essential advice to other officers of the Fish and Wildlife Service who serve on other similar organizations. The Commissioner and his staff play an active role in negotiations relating to the rights of American fishermen on the high seas. During the past year, a substantial part of the time and effort of the Commissioner has been devoted to these problems.

The growing need for a continentwide approach to the conservation of migratory waterfowl raises problems of bringing about more effective cooperation between the United States, Mexico, and Canada. The Commissioner's Office has provided advice to the Assistant Secretary for Fish and Wildlife on the conduct of informal discussions with representatives of Mexico and Canada aimed at exploring the possibilities of closer coordination of the activities of the three Governments in this field.

The Outdoor Recreation Resources Review Commission report has pointed up the need and demand for recreational resources and the importance of land and water to this program, and that 90 percent of all Americans participated in this activity in 1960. The 1960 survey of hunting and fishing was specifically directed to the use and importance of those resources.

The problems of the States and those on Federal lands have specifically pointed up the need for public education. The increasing intensity of use, the limitations of land and water areas, the need to change philosophy in the management of waterfowl, other recreations competing with fishing on the same area, the litterbug and despoiler problem, the rising importance of private land for the production of game, the necessity for providing runoff for streams and lakes, the changes in habitat creating problems of dwindling species, private development of land that was formerly thought suitable only for fish and wildlife, the changes in agricultural practices which encourage depredations—all these are factors creating problems in managing lands and the public.

Preservation of these resources can only be accomplished with the cooperation of an enlightened public. The sheer pressure of numbers of people is a problem in itself. Sympathy and concern for the resources and the land, and a knowledge of why regulations are imposed or restrictions promulgated are the only means of carrying out our responsibilities adequately. Public support and action, with respect to the basic Fish and Wildlife Service program of conservation of important food and recreational resources, are available only to the degree that the public understands the program and what each individual must do to make it succeed. Within the lifetime of persons now being born, the population of this country will pass the 300 million mark, offering a constantly growing challenge to our basic

resources. Thus, information and education are vital to our basic task of assuring adequate resources for the future.

With a modest staff, we are making every possible effort to bring information on Federal fish and wildlife programs to as many persons as possible. We are also striving to contribute to the education of our young people in conservation, working in cooperation with personnel of other Federal departments and of State and private agencies and through the various youth groups.

The coordination and review of Service programs is also a responsibility of the Commissioner's Office. Bureau programs are reviewed primarily from the standpoint of policy direction and management improvement. A specific example is the servicewide safety, health, and fire prevention program directed at the reduction of personnel injuries, property damage loss through accidents, tort claims, and inefficiencies arising from unsafe conditions and unsafe acts. The Commissioner's Office is represented on the National Committee for the International Conference on the Prevention of Pollution of the Seas by Oil and serves in an advisory capacity to the Secretary's Office on water quality activities of the Service.

### Foreign Nationals Fishing in U.S. Territorial Waters

Mr. Pautzke. Mr. Chairman, this morning I have with me on my left Mr. McKernan, the Director, Bureau of Commercial Fisheries; and on my right Mr. Janzen, Director, Bureau of Sport Fisheries and Wildlife. You know a football team has to bring their two backfield men with them.

Chairman Hayden. That is right.

Mr. Pautzke. I do not desire to discuss the Bureau programs, as these two gentlemen will cover them at a later time. I do feel, however, Mr. Chairman, that there are a couple of issues that would be well to elucidate briefly, as we are more or less at a crossroads with regard to these subjects.

First, I would like to mention the international fisheries scene. I am certain that you have read in recent press reports about the number of intrusions we have had by foreign nationals fishing in our territorial waters.

Chairman Hayden. Do you mean on both oceans, the Atlantic and the Pacific?

Mr. Pautzke. Yes, sir; on both oceans and in addition, in the Gulf of Mexico in our shrimp waters.

### Prevention Except Under License

The intrusion of Cuban fishing vessels in our waters has caused considerable concern with respect to how far we could go regarding this situation. I am very pleased to report to you that Congress has recognized this problem and has given serious consideration to Senate bill 1988, which is designed to prevent foreign nationals from fishing U.S. territorial waters, except under special license formulas. I did not know that the Senator from Alaska, Senator Bartlett, would be here, but he is the author of that bill. It is a very fine piece of legislation, by the way.

### Protection of Migratory Waterfowl

In addition to the areas recently in the news, we are also concerned with major issues such as protection of our migratory waterfowl. Because of the encroachments of civilization, we are dealing with the two governments to the north and south of us (Canada and Mexico) to protect these birds that are left, to increase their populations, and to add to our recreational potential.

NORTH PACIFIC FISHERIES CONVENTION

Mr. Chairman, you are probably also well acquainted with our recent negotiations with Canada and Japan relative to a new treaty to replace the one that will soon expire, having run its 10 years of life. This is the North Pacific Fisheries Convention.

At the present time, this treaty is still in force, and if it continues to be in force through renegotiation, we shall be able to protect our North Pacific fisheries resources at their present population density levels.

ECONOMIC STATUS OF RESERVATION INDIANS

We are also, on a domestic issue, very much concerned about improving the economic status of Indians on reservations. The Commissioner's Office has at the present time a very close working relationship with a number of other bureaus associated with the Department of the Interior on this particular subject. Fish and game play an important part in helping the Indian toward self-sufficiency. We have participated actively with Indian tribes to try and resolve a number of their problems.

That, Mr. Chairman, in brief, concludes my general remarks. I will be happy to answer any questions you may wish to ask.

Chairman HAYDEN. My Apache Indians are very happy about the hatcheries that have been established there. People are coming from great distances to fish.

Are there any questions?

Senator BARTLETT. I have just a few, Mr. Chairman.

OFFICE OF INTERNATIONAL RELATIONS

Mr. Pautzke, will you tell us about your Office of International Relations. How many people staff it?

Mr. PAUTZKE. In our Office of International Relations, we have five—three specialists and two secretaries funded in this budget, Senator. This small trained staff works with these problems of international significance.

Senator BARTLETT. What is your budget item for this activity?

Mr. PAUTZKE. The budget item at the present time is $50,400.

ADEQUACY OF STAFFING

Senator BARTLETT. In light of the increasing complexity of this subject, the need for more and more negotiations with more and more foreign nations, I should like to ask you if, in your opinion, you are adequately staffed to meet the problems that face the Department?

Mr. PAUTZKE. Sir, the Office of International Relations endeavors to cover these various fields and problems, but we are spread real thin. One of my greatest concerns beyond the minimal staffing or lack of depth in numbers is the length of time required to train new people to come up through the ranks so that they have sufficient familiarity with the subject matter and techniques to be able to sit down at the table with these foreign nationals. Foreign delegations seem to be overflowing with trained personnel.

COOPERATION WITH DEPARTMENT OF STATE

Senator BARTLETT. Do you work in cooperation, in this Office, with the Department of State?

Mr. PAUTZKE. We do, sir. However, we are the representatives that deal with the resource whereas they are the ones that deal with regard to effects on the country as a whole.

In other words, we deal with this situation by representing the national resource and the protection of our fisheries industry.

Senator BARTLETT. Was your budget request trimmed either in the Department or at the Bureau of the Budget?

Mr. PAUTZKE. Yes, our budget was trimmed.

Senator BARTLETT. How much more money did you desire for how many people?

ADDITIONAL PERSONNEL REQUESTED

Mr. PAUTZKE. I had believed necessary, as I recall, sir, additional personnel of at least two foreign affairs specialists for the purposes of more adequate staffing in that Office and one person for stenographic help.

Senator BARTLETT. How much money would that be?

Mr. PAUTZKE. This as I recall would cost about $35,000.

FOREIGN FISHING FLEET ACTIVITIES

Senator BARTLETT. Commissioner Pautzke, will you be good enough to supply for the record a statement showing the activities of the foreign fishing fleets off our coasts, including the Gulf Coast, and couple that with figures revealing the notable increases in the numbers of foreign fishing vessels that are taking fish that were formerly caught only by American fishermen as to geographic locations? Can you do that?

Mr. PAUTZKE. Yes, sir; I will.

Chairman HAYDEN. That will be placed in the record.

(The statement referred to follows:)

SUMMARY FOR 1963

Over 1,000 Soviet, Japanese, and Canadian fishing vessels were believed to have operated off U.S. coasts in 1963, including about 30 factoryships, 700 trawlers, about 170 trollers, and over 100 other support vessels. The breakdown by major areas is given below:

NORTH PACIFIC AND BERING SEA

Soviet fishing in the eastern North Pacific and Bering Sea in 1963 reached a peak of 200 vessels. Soviet exploratory fishing vessels were reported off the coasts of Oregon and Washington.

In late June 1963, the Japanese fleet strength in the eastern North Pacific and Bering Seas was estimated at 180 vessels, while in July 1963, the fleet numbered 210 to 215 vessels. In addition, salmon craft operating in the western Aleutian area included 11 factoryships and nearly 300 catcher boats. At the same time, two Japanese whaling factoryships, each accompanied by three killer vessels, operated in the Gulf of Alaska, while a fourth whaling fleet was reported operating at the far end of the Aleutian Islands. Incidental whaling was also conducted by the Soviets.

About 170 Canadian trollers operated in the area during the year.

NORTHWEST ATLANTIC

A peak of approximately 160 Soviet fishing vessels was sighted on Georges Bank in the Northwest Atlantic. In addition, Japanese fishermen have conducted exploratory operations but have not as yet dispatched fishing fleets.

GULF OF MEXICO AND OFF THE SOUTHEASTERN ATLANTIC COAST

Several Soviet vessels were also reported operating off the Carolina coasts and Florida. At least 20 Soviet trawlers are believed operating in the Caribbean and Gulf of Mexico out of Cuba. In August 1962, announcement was made of a Soviet-Cuban fishing base to be built in Havana Bay. This important base is expected to facilitate Soviet fishing operations throughout the Western Atlantic.

## Background Information

NORTH PACIFIC AND BERING SEA

About 10 years ago the Soviets began to develop extensive high seas fisheries in the North Pacific area. In this area, a peak of about 200 Soviet fishing vessels were sighted in mid-June 1962, mostly in the Bering Sea. Segments of this fleet began to move into the eastern North Pacific and the Gulf of Alaska in June; over 100 sightings of Soviet vessels were reported in the Gulf of Alaska in late November. In mid-November, 18 Soviet fishing craft were 30 miles south of Cordova, Alaska.

King crab, herring, ocean perch, cod, sablefish, Alaska pollock, and flounder have been reported as being caught; quantities of each species taken are unknown. No reports have been received of Pacific halibut being taken.

Over 200 Russian fishing and support vessels operated in the Gulf of Alaska in the summer of 1963. During the winter of 1963–64, the Soviets have operated in the Bering Sea with a fleet of up to 150 vessels. The Soviet catches are primarily groundfish and herring, with some king crab fishing in the Bering Sea.

Before World War II, Japanese operations in the North Pacific were small compared to operations at the present time. In the early 1950's the Japanese fishing effort in the North Pacific increased markedly. Japanese operations for the summer of 1963 have included over 150 vessels in the Bering Sea and 6 vessels in the Gulf of Alaska. The Japanese caught groundfish in the gulf and groundfish, shrimp, and king crab in the Bering Sea. In addition, the Japanese licensed 78 vessels to fish in the eastern Bering Sea and landed 3.6 million pounds of halibut in the Bering Sea halibut quota area. Halibut in that area were formerly caught by North American fisherman exclusively. Japanese fishermen took over 10 million pounds of additional halibut in the eastern Bering Sea outside the quota area.

The Japanese sent three trawlers, three gillnetters, and one factoryship into the Gulf of Alaska during the summer of 1963. This fleet of seven vessels landed a total catch of 6.4 million pounds, consisting primarily of ocean perch, black cod, and shrimp. Japanese vessels have operated in the Gulf of Alaska during only the last year or two.

Gear conflicts between Soviet trawlers and U.S. king crab fishermen have occurred recently in the Gulf of Alaska. There have been several instances of damage to U.S. crab pots alledgedly caused by Soviet trawlers. The United States has brought these incidents to the attention of Soviet Embassy officials. It is hoped that a mutually satisfactory resolvement of this serious problem can be obtained in the near future.

NORTHWEST ATLANTIC

The rapidly increasing fishing activity in the area covered under the International Convention for the Northwest Atlantic Fisheries (ICNAF) has created several problems. Increased competition on the fishing grounds has led to claims of gear and vessel interferences among fishermen of several nationalities. While fishing effort of the original signatories to the Convention has tended to remain more or less static, the last few years have witnessed the entry of new nations into the fisheries; i.e., the U.S.S.R., Poland, West Germany, and East Germany.

The growth of the Soviet fishing activity in the Convention waters has been meteoric. In 1956, Soviet vessels caught 3,000 metric tons of haddock and cod in the ICNAF area; in 1961, this catch totaled 198,000 metric tons. Although haddock and cod are the principal food fish species taken by U.S. fishermen, the

Soviets have not for the most part, done their fishing for these species in the same subareas as those fished by U.S. fishermen. This, of course, does not preclude the possibility that these species will be fished in the same areas in the future.

Since their initial efforts in 1956, the Soviets continually have increased their annual catches in the ICNAF area until in 1961 their total catch was 340,557 metric tons or about 14 percent of all fish taken in that area.

*U.S.S.R. catches in the ICNAF Convention area, 1959–61*

[In metric tons]

| Species | 1959 | 1960 | 1961 |
|---|---|---|---|
| Cod | 15,453 | 103,306 | 158,066 |
| Herring | (1) | (1) | 67,584 |
| Ocean perch | 155,004 | 104,147 | 60,498 |
| Haddock | (1) | 36,306 | 40,077 |
| Flounder | 678 | 4,392 | 5,448 |
| Halibut | 224 | 237 | 140 |
| Other | 10,578 | 9,689 | [2] 7,848 |
| Total | 181,937 | 258,077 | [3] 339,661 |

[1] Included in "other."
[2] Includes only other species of groundfish.
[3] Includes only groundfish and herring.

Source: Statistical bulletins of the International Commission for the Northwest Atlantic Fisheries.

Their catch in the vicinity of Georges Bank, an area formerly fished almost exclusively by North American fishermen, was 207,000 metric tons in 1962.

The Soviet delegation to the ICNAF meeting held in Halifax in June 1963 reported the Soviets' 1962 fish catch from ICNAF subarea 5 (principally Georges Bank) in metric tons as follows:

| | 1962 | 1961 | Increase over 1961 landings |
|---|---|---|---|
| Cod | 5,303 | 55 | 5,248 |
| Haddock | 1,134 | 0 | 1,134 |
| Redfish | 1,590 | 0 | 1,590 |
| Silver hake | 41,900 | 0 | 41,900 |
| Other groundfish | 6,089 | 6 | 6,083 |
| Herring | 151,144 | 68,000 | 83,144 |
| Other | 153 | 0 | 153 |
| Total | 207,313 | 68,061 | 139,252 |

The first large concentration of Soviet vessels in 1963 was seen on June 11 when a Fish and Wildlife agent counted 167 vessels and estimated he probably missed an additional 25. This fleet was located on what is known as the southeast part of Georges Bank, an area which lies on the eastern side of Georges Bank, approximately 100 miles southeast of Nantucket Island. These grounds are usually fished by New Bedford vessels seeking scallops or yellowtail flounder. Fishing there continued through July and until about the first week in August when the fleet moved northwestward about 40 miles to an area just southwest of Cultivator Shoal. During August, approximately 200 vessels concentrated their fishing in an area about 20 miles wide and 40 miles long. Observations made by Coast Guard personnel on special flights indicated that on several occasions well over 200 Soviet vessels were fishing on Georges Bank. From limited observations indications are that the fishing conducted by the Soviet fleet was primarily for the purpose of catching herring and whiting.

Interference with U.S. fishing activities was at a minimum until August when the Soviet fleet moved into the Cultivator area usually fished at this time of the year by the Gloucester whiting fleet. In addition, the Soviets did fish to within at least 4 miles of the shores of Cape Cod and the Bay of Fundy on several different occasions. These are also waters traditionally fished for herring and whiting by trawlers from Portland, Gloucester, and Provincetown.

These foreign activities in the North Atlantic have created numerous problems which are being given serious study and, where desirable have been subjected to international negotiations. These problems include:

1. Discarding of old nets on the fishing grounds leading to entanglement of these nets in vessels running gear and possible loss of life and property.
2. Inadequate marking of floating gillnets.
3. Failure to give sufficient berth to a vessel already in the act of fishing.
4. Confusion regarding use of proper signals.
5. Obtaining international agreement on conservation measures, e.g., mesh sizes, chafing gear, and other attachments to trawl gear.
6. Implementing a joint system of international enforcement.

GULF OF MEXICO AND OFF THE SOUTHEASTERN ATLANTIC COAST

Information available to the Fish and Wildlife Service is seriously lacking in specific details concerning foreign fishing activities in the Gulf of Mexico. The most recent statistical information on the Mexican fishing fleets is for the year 1961 when 688 vessels over 3 net tons operated in the gulf.

The catch by the Mexican fleet in all areas has increased from 71,000 metric tons in 1954 to 218,600 metric tons in 1962. The Service does not have the catch figures for the Gulf of Mexico but it is assumed that the gulf fleet shared in the increased catch.

The size of the Cuban fleet is unknown. The Cuban Government plans to expand fishing operations to a considerable degree. Increased Cuban activity is evident from the recent invasion of U.S. territorial waters off the coast of Florida by four Cuban vessels. Cuba's total catch in 1954 was 11,500 metric tons and this catch increased to 35,900 metric tons in 1962. Future increases in the catches can be expected.

Soviet activities in the gulf have not been extensive until recent years. It is expected that vessels operating out of Cuba will increase in the near future. The harbor at Havana is being modified to serve as a home base for such vessels. Four Soviet fishing vessels have picked up supplies at Veracruz, Mexico, within the past year. In addition, a Soviet-Cuban research expedition to study the fishery resources of the gulf and Caribbean is planned for the summer of 1964.

Japanese activities have not yet been important in the Gulf of Mexico. An exploratory operation took place last year. Extensive commercial operations have not developed, but some exploitation by Japanese tuna vessels and, possibly, by shrimp vessels can be expected. The Japanese will doubtless attempt to establish a fishing base somewhere in the gulf.

Various Soviet explorations have been conducted off the coasts of Virginia, the Carolinas, and Florida. Stern trawler activity off the New Jersey and New York coasts with four to seven vessels was the greatest during March and April 1963. On April 16, seven of these vessels were observed about 60 miles south of Montauk Point, Long Island, fishing for whiting. Other species that have probably been taken off the southeast coast would include herring and menhaden. For example, Soviet scientists have reported in Rybnoe Khoziaistvo that they are making a detailed study of the menhaden resources of the northwestern Atlantic Ocean.

The problems relating to foreign fishing operations in the gulf and off the southeastern coast of the United States are expected to increase and will require additional time and effort of technicians with a view toward reaching solutions which are in the best interests of the United States and its fishermen.

BUDGET REQUEST INCREASE

Senator BARTLETT. Finally, Commissioner Pautzke, I want to applaud you for endorsing so wholeheartedly S. 1988. Thank you, that is all.

Chairman HAYDEN. Any questions?

Senator YOUNG. You are asking only for $7,000 more than the budget of a year ago?

Mr. PAUTZKE. Sir, this was the amount that was allowed me to provide additional pay costs. As I mentioned earlier in response to Senator Bartlett's question, my budget was trimmed and did not include what we had asked for.

Senator YOUNG. I expected it was not. But you can live with this, can you not?

Mr. PAUTZKE. Yes, sir; but we will not be able to do the full job required of us.

Senator YOUNG. That is all. Thank you, Mr. Chairman.

Chairman HAYDEN. We thank you for your statement.

Now we will take up the Bureau of Commercial Fisheries.

## BUREAU OF COMMERCIAL FISHERIES

## STATEMENTS OF DONALD L. McKERNAN, DIRECTOR; CLEO F. LAYTON, ASSISTANT DIRECTOR FOR ADMINISTRATION; PHILLIP NELSON, ACTING ASSISTANT DIRECTOR FOR BIOLOGICAL RESEARCH; JOHN A. HOLSTON, ACTING ASSISTANT DIRECTOR FOR INDUSTRIAL RESEARCH; JOHN I. HODGES, ACTING ASSISTANT DIRECTOR FOR RESOURCES DEVELOPMENT; AND HAROLD W. SORRILL, CHIEF, BRANCH OF BUDGET AND FINANCE

### NATIONAL OCEANOGRAPHIC PROGRAM

Chairman HAYDEN. The Bureau of Commercial Fisheries has included with its justifications a statement of its accomplishments under the national oceanographic program. This statement will be included at this point in the record. I believe that the various activities of the Bureau in connection with the national oceanographic program will be covered as we consider the budget requests for the various projects to be carried on in fiscal year 1965.

(The statement referred to follows:)

### ACCOMPLISHMENTS UNDER THE PROGRAM

Since 1959 the Bureau of Commercial Fisheries has been working closely with other Government agencies, with the Interagency Committee on Oceanography (ICO) of the Federal Council for Science and Technology, with the National Academy of Sciences Committee on Oceanography (NASCO), and with university and private research institutions to plan and carry out a coordinated national program in oceanography. During the past 5 years, the Bureau has paid increasing attention to oceanographic research as a means of increasing and maintaining the yield of living resources.

The Bureau's oceanographic investigations have now reached a level of maturity with many substantial achievements. Some of the more noteworthy of these are as follows:

#### PHYSICAL AND CHEMICAL OCEANOGRAPHY

The physical and chemical properties of the oceans have an important influence on the basic productivity of the sea and the distribution and abundance of its fishery resources. Some of the principal contributions of these studies have been: (1) monitoring the seasonal north-south drift of the California current extension from stations in or near Hawaii where trends in sea-surface temperature and salinity were determined; (2) calculation of heat transfer and energy systems of the central Pacific as related to ocean currents, atmospheric conditions, and fish distribution and migration; (3) detailed analysis of lengthy time series of North Pacific sea-surface temperature data along with related meteorological processes that may cause variations in water transport, heat gain or loss, sea level differences, and fish abundance and distribution; (4) definition of physical and chemical features of Pacific subarctic waters as part of an extensive program to explain factors controlling high seas distribution of salmon; (5) cooperative studies with California agencies on the California current system and physical oceanographic features of the eastern, subtropical, and tropical Pacific; and (6) observations on the influence of currents in the western North Atlantic on the drift and survival of fish larvae.

In cooperation with the Scripps Institution of Oceanography, 24 topographic charts of the eastern Pacific have been produced, showing the locations of sea mounts and other features of the ocean floor that have a bearing on fish aggregation. Monthly temperature charts of the eastern Pacific have aided fishermen in locating fish and have been useful to fishery scientists, oceanographers, and meteorologists. Temperature studies have been conducted and charts issued for the western North Atlantic.

Much of our research in the Gulf of Mexico and along the Atlantic coast has been directed toward increasing our understanding of environmental conditions in coastal and estuarine habitats. Circulation and net current flow through bay and inland passages have been studied by means of drift bottles and radio transmitting, free-floating buoys.

The Director of the Biological Laboratory in Washington, D.C., was selected as coordinator of the international cooperative investigations of the tropical Atlantic. This program, the first two parts of which were completed in 1963, has concentrated its efforts on the study of the relationships between the circulation of ocean and atmosphere and their influence upon potential fishery yields of the tropical equatorial belt between the east coast of South America and the West Coast of Africa. Two Bureau vessels participated, along with at least a dozen other ships from six other countries.

### BIOLOGICAL OCEANOGRAPHY

Significant progress has been made toward achieving an important objective: the maximum development and use of the living resources of the sea. Looking toward the need of the United States for an additional 3 billion pounds of fish and shellfish annually by 1980, the Bureau has conducted active programs of exploratory fishing to discover new fishery resources, and of biological research to rehabilitate depleted stocks and conserve presently exploited fisheries. Explorations off the Columbia River have given evidence that commercial quantities of fish and shellfish occur to depths of at least 600 fathoms. These resources have not previously been utilized by our commercial fleets. The results of this exploratory fishing have stimulated new commercial operations in a number of areas on what were primarily unknown or underexploited resources. Extensive new scallop beds, having important commercial potential, have been located off the east coast of Florida. New data have been collected concerning stocks of shrimp and bottomfish along the northeast coast of South America and their relations to environmental factors. New fishing methods and sampling techniques have been developed to ascertain the presence of unknown or little used fishery resources, particularly in the middepths of the ocean that have been little exploited in the past.

Considerable research effort has been devoted toward gaining a better understanding of the oceans in order to develop reliable methods for predicting places and times of fish concentration. Since 1959, annual predictions, based on changes in ocean circulation, have been made for the catch of the Hawaiian skipjack fishery. In the eastern Pacific, forecasts now can be made of the distribution and relative abundance of albacore and bluefin tuna during the summer season on the basis of rates of warming during early spring. In New England waters, forecasts are made on the abundance of groundfishes and of sea scallops.

Results of pioneering studies in the scientific field of serology, or blood group analysis, have been used to identify and separate races or subpopulations of marine fishes. Such studies have been used to identify subpopulations of tuna throughout the Pacific, of sardines in the eastern Pacific, of salmon in the eastern North Pacific, and of herring and groundfishes in the western North Atlantic. Information from such studies on the occurrence of subpopulations and the degree of overlap or mixing is essential for the intelligent management and full utilization of these resources.

Our scientists have made important contributions to knowledge of the physiology and behavior of fishes and invertebrates. They have strengthened their efforts in improving knowledge of the kinds of animals in the sea, and their distribution. A new field station for this purpose was established at Stanford, Calif., early in 1963. Studies have been pursued on the artificial culture of marine organisms, particularly shellfish. Tolerance of these animals to environmental factors such as salinity, temperature, and turbidity during critical periods in their life cycle has been determined.

Considerable effort has been devoted to the work of a number of international commissions concerned with the conservation and use of marine resources

Much of our research on salmon and fur seals in the North Pacific, on tuna in the eastern tropical Pacific, and on groundfishes in the Atlantic is designed to provide information to assist in the management and preservation of these international resources. The Bureau has participated in the International Indian Ocean Expedition by providing scientists, skilled fishermen, and special fishing gear for assessing the varying abundance of tunas, spearfishes, and other potential commercial fishes in relation to oceanographic factors. Since 1950, a laboratory for the study of radiobiology has been maintained at Beaufort, N.C. In recent years, with the assistance of the Atomic Energy Commission (AEC), research has been conducted on the effects of radioactive substances and pollution on marine organisms and how these may be concentrated by plants and animals and transmitted to man. This knowledge has been useful in evaluating the effect of proposed atomic powerplants on marine resources.

### TRAINING OF SCIENTISTS

Recognizing that our rapidly developing programs in marine science could be severely handicapped by a shortage of qualified scientists, the Bureau established, in 1962, a program for graduate educational grants in aquatic sciences. In 1962 we supported 17 students at 12 universities, and in 1963 made grants in support of an additional 21 students. This program has been singled out for special commendation by review panels of the Federal Council of Science and Technology.

### INSTRUMENTATION

One of the most critical needs of the national oceanographic program is for new and improved instruments. The Bureau played an important role in planning a Government-industry oceanographic instrumentation symposium, held in Washington, D.C., in August 1961. This symposium provided an excellent means for exchange of information between Government scientists and industry with capabilities in instrument development. In the fall of 1962, an instrumentation unit was established at the Biological Laboratory in Washington, D.C. This unit provides instrumentation services and coordinates instrument development within the Bureau and with other agencies.

### LOOKING AHEAD—REQUIREMENTS IN FISCAL YEAR 1965

To maintain this favorable rate of progress additional support is required in fiscal year 1965, chiefly for four purposes. First, under the national oceanographic program, the Bureau has completed, or has under construction or in the planning stage, several new research vessels and laboratories. It is necessary that funds be made available to operate and maintain these facilities, and to provide the qualified scientists needed for proper staffing. Such funds will operate a new ship and a new laboratory at La Jolla, Calif.; a new ship and a new laboratory at Seattle, Wash.; and new ships in the Gulf of Mexico and in Hawaii. Required increases for these purposes total $676,000.

Secondly, the Bureau has underway a substantial number of programs in oceanography which require continuing support in fiscal year 1965 if they are to reach their objectives according to schedule. These include research programs in fish physiology and behavior, serology, taxonomy, plankton studies, biological and physical oceanography, and exploratory fishing. Some phases of these programs are being discontinued as they reach their objectives; others will require budget increases if they are to meet planned schedules. Since these are, in the main, growing programs not yet operating at a level consistent with national needs, increases exceed decreases and amount to $827,000.

Thirdly, certain new programs need to be started if the proper balance anticipated by NASCO and the ICO is to be achieved. These new programs include detailed, oceanographic studies in the eastern tropical Pacific, in the trade wind zone of the central Pacific, and in coastal and offshore areas on the Gulf of Alaska. The Bureau also plans to begin new studies on the diseases of oysters. These new programs will require increases of $365,000.

Fourthly, construction funds will be needed for research vessels and shoreside facilities for which planning will be completed in fiscal year 1964. Money also is needed for outfitting a new research vessel, the construction of which was funded in fiscal year 1964. The total requested for such construction and outfitting is $4.2 million.

Although considerable progress has been made toward achieving the national goals, first defined by NASCO in 1959, the Bureau's rate of progress is lagging

far behind the schedule that was recommended for increasing our knowledge of the living marine resources. Funding in fiscal year 1965 is required at the level requested if our country is to overcome the disadvantages we now experience in competing with other nations for the sea's fishery resources.

A report now under preparation by NASCO on economic benefits from oceanographic research states that rational development of the U.S. domestic fisheries could double U.S. fishery production within a decade. The growth of high seas fisheries by the United States could be much more rapid. It is estimated that our high seas catch could quadruple within a decade. These growth rates cannot be established or maintained, however, unless oceanic investigations are conducted on a worldwide basis to determine: (1) how the distribution and abundance of fish populations vary with changing conditions in the sea; (2) the ocean conditions which bring about economically hatchable fish concentrations; and (3) those aspects of fish behavior which can be exploited to reduce the costs of catching fish. The necessary levels of research and development to produce these results have not yet been reached.

Direct economic returns can be expected from oceanographic research expenditures in the form of larger catches at lesser cost. In addition, there are substantial but less tangible benefits from the development of foreign-based fisheries, in terms of better fed people and increased foreign exchange earnings in the underdeveloped countries. These are important matters in which our Nation has a large stake.

*National oceanography program*

[In thousands of dollars]

| Appropriation, activity, and subactivity | 1964 | 1965 | Increase |
|---|---|---|---|
| Management and investigations of resources | 9,525.1 | 11,393.1 | 1,868.0 |
| Marketing and technology: Exploratory fishing and gear research | 1,142.5 | 1,305.5 | 163.0 |
| Gear research, faunal surveys, and fishery explorations to locate new fish stocks of commercial importance. Studies to improve fishing gear and to develop new ways of fishing are being conducted in the Pacific Northwest, the Gulf of Mexico, and off the North and South Atlantic coasts of the United States. Presently unexplored areas of the ocean are being explored for high seas pelagic fish, bottom species, and shellfish. New work in the oceanography program will be for shrimp and fish stocks in the northeastern Pacific Ocean, and new gear research activities will be directed at more efficient harvest of pelagic species. | | | |
| Research | 8,382.6 | 10,087.6 | 1,705.0 |
| Coastal and offshore | 7,745.0 | 9,428.0 | 1,683.0 |
| Shellfish | 637.6 | 659.6 | 22.0 |
| Biological research and physical oceanographic studies on coastal and high seas fisheries. Principal investigations are on tuna and other important pelagic species, ground-fishes such as haddock and halibut, the ocean phases of salmon life cycles, shrimps, oysters, clams, and sea scallops. They represent part of the national oceanographic program and are designed to meet the specific needs of important U.S. fisheries. The programing in 1964 and 1965 provides added emphasis in whale research, fish behavioral studies, fish and shellfish diseases, food cycles, instrumentation, taxonomy, ecology of larval fishes, the biological aspects of ocean surveys, and basic studies in oceanography. The total program is coordinated with those of other Government agencies through the Inter-agency Committee on Oceanography (ICO), the Office of Science Adviser, and the National Academy of Sciences. | | | |
| Promote and develop fishery products and research pertaining to American fisheries (S–K funds) | 2,616.5 | 2,616.5 | ---------- |
| Marketing and technology: Exploratory fishing and gear research | 297.1 | 297.1 | ---------- |
| New trawl and pelagic fisheries are sought off New England and the central Atlantic coast. Extensive gear research is conducted, particularly to seek new advances in the efficient capture of trawl fish species. Special explorations to meet the more immediate needs of industry are conducted. | | | |
| Research | 2,319.4 | 2,319.4 | ---------- |
| Coastal and offshore | 2,037.4 | 2,037.4 | ---------- |
| Shellfish | 282.0 | 282.0 | ---------- |
| Biological and oceanographic research to meet the needs of specific fisheries. Programs are closely related to those carried out with annual appropriations but in general include objectives of more immediate urgency to the industry. Major programs continue to be on tuna, shrimp, sardines, menhaden, and bottom fish. | | | |
| Construction: Fishery facilities | 3,352.0 | 4,200.0 | 848.0 |
| Provides research and exploratory ships, construction of new laboratories and improvements to existing laboratories with which to carry out the Bureau's total program in oceanography. Continues a program of upgrading of fishery research facilities as recommended by the National Academy of Sciences, Committee on Oceanography. | | | |
| Total | 15,493.6 | 18,209.6 | 2,716.0 |

MANAGEMENT AND INVESTIGATIONS OF RESOURCES

Chairman HAYDEN. I also will place in the record the statement in justification of the Bureau's request for management and investigations of resources. This amounts to $20,681,000, an increase of $2,848,100 over the amount appropriated last year.

(The statement referred to follows:)

JUSTIFICATION STATEMENT

The Congress established a sound and comprehensive national fisheries policy in the Fish and Wildlife Act of 1956.

It is the national fishery policy to—

1. Increase and maintain forever, for the people of the United States, a fishery resource capable of yielding the maximum annual product.

2. Strengthen and maintain a vigorous fishery by assuring full and fair access to its raw materials and the American market.

3. Do these things in partnership with the States and in full accordance with our international obligations; and without sacrificing our system of free enterprise.

Consistent with its responsibilities under this policy, the Bureau conducts, with funds provided under this appropriation, programs with two broad objectives: (1) to strengthen the commercial fishing industry through research, development, and services; and (2) to conserve the fishery resources in rivers, lakes, estuarines, and the seas and oceans. These programs include fishery research, primarily of a fundamental and applied research nature, using fundamental research to develop new knowledge and then applying this knowledge to the practical solution of fishery research problems; management, and habitat improvement of aquatic resources; locating and developing new fishery resources; developmental research on fishing gear and methods; technological research in production and processing of fishery products; market promotion; economic research and services; statistical services; educational aids; and technical advice and assistance in international fishery relations and enforcement activities.

The Bureau is developing its programs to make certain that our fishermen have continuing access to the fisheries resources of the oceans of the world; that they harvest these resources in consonance with scientific conservation practices in order to insure continuing high rates of productivity; that these resources are made available to the American public in the best palatable form with the highest quality.

These programs involve supplying important services to the industry, consistent with services supplied by Government to other basic industries of our country.

Continued progress was made in fiscal year 1963 in the prosecution of Bureau programs.

The Bureau assisted the Coast Guard in expanding aerial and sea patrols in the Northwest Atlantic Ocean and in the Bering Sea and Gulf of Alaska to provide more effective surveillance of foreign fleet operations and to satisfy the growing concern and interest in foreign fleet operations by Members of Congress, the officials of the States, and the general public. The Bureau's contribution to this cooperative effort with the Coast Guard involved joint planning, providing qualified fishery management agents to accompany and assist all patrol craft, and the conduct of a limited sea patrol with a Bureau vessel. Of particular concern during the past year was the expansion of foreign fishery activities from the Bering Sea to the Gulf of Alaska with resultant gear conflicts with U.S. crab fishermen in the Kodiak area. Activities of foreign fishing vessels documented by Bureau personnel include entry into the king crab fishery, repeated violations of territorial waters, and questionable practices in the taking of whales. The Bureau staff developed new sources of information and new methods of analyses pertaining to foreign fleet activities which expedited the flow of and increased the value of such information.

As a result of the review of the Bureau's economics program by a panel of well qualified economists, a program designed to develop and disseminate up-to-date economic situation analyses for the major segments of the fishing industry was further developed. Another recommendation of the panel included the increased use of fundamental economic research to solve basic problems such as low productivity and lack of knowledge of market demand potentials. This basic research is planned for future years.

Staff members worked successfully in support of the industry's needs for flexible transportation services to get fishery products to market expeditiously and in good condition, and reviewed operations of fishery cooperatives for compliance with the Fishery Cooperative Marketing Act.

New shrimp grounds, discovered during explorations off the northeast coast of South America, provided an immediate source of additional raw material for the ever-expanding U.S. shrimp fleet operating there. Excellent quantities of highly desirable food fish such as snappers and croakers were located during trawl

explorations off South Carolina and Georgia. Additional stocks of king crab were located during explorations conducted in the Gulf of Alaska.

Gear research and exploratory fishing efforts in New England proved the effectiveness of long-line gear for taking swordfish, and has increased tremendously the production of this species. In the Northwest Pacific, gear research activities were strengthened considerably through the establishment of a gear research unit at Seattle, Wash. Preliminary tests in the Gulf of Mexico with experimental shallow water shrimp trawls having an electrical field ahead of the net produced daylight catches of shrimp as large as the catches normally made only at night. Fishing gear instrumentation was advanced by the development of a selfcontained deepwater camera system for photographing the behavior of shrimp and fish species in front of trawls under natural conditions. Preliminary explorations and gear development efforts were initiated in the Oahe Reservoir section of the Missouri River. Initial results indicated good quantities of underutilized fish as well as suitable locations for the commercial harvesting of fish are available.

Market News coverage was streamlined and improved to adequately meet changing conditions in the fishing industry and to supply timely information by mail, telephone, and teletype on market conditions and trends for fishery products and byproducts.

The collection and dissemination of prices and market conditions for a wide variety and forms of fresh, frozen, and canned fishery products and byproducts continued. Other statistical services included periodic overall summaries and reports on prices and specific products; and general and specific fishery information from domestic and foreign sources. For the first time, information was compiled and released on the age distribution of the nearly 12,000 vessels in the U.S. commercial fishing fleet. Information was assembled for publication in the Bureau's annual Statistical Digest, for the first time, on the amount of fishing effort expended in taking fish in the Great Lakes and the international lakes of northern Minnesota. The collection and publication of monthly information on the production of breaded shrimp was undertaken.

A comprehensive program of research on fish oil has indicated potential value in reducing incidents of atherosclerosis when used as human food. The use of fish oils for pharmaceutical and nutritional uses are being investigated and show promise as valuable supplements in relieving diabetes and thyroid ailments.

Investigations on the quality of fish products in conjunction with the development of U.S. standards for grades have revealed the need for methods to improve handling, storage, and transportation techniques. These investigations resulted in the development and promulgation of 3 additional U.S. standards for grades of quality, making a total of 14 now available.

To cope with the problems brought about by the rapid expansion in the world's fisheries, the Bureau expanded its coverage of foreign fishery activities and developments. Basic information on the technological, biological, and economic aspects of the fisheries of foreign countries was collected, coordinated, and analyzed for use in shaping U.S. policy and programs and in assessing the impact on the U.S. fisheries. The Bureau participated in the fishery activities and programs of the United Nations Educational, Scientific, and Cultural Organization (UNESCO), Food and Agricultural Organization (FAO) of the United Nations, Organization for Economic Cooperation and Development (OECD), and other international governmental and nongovernmental organizations. Trade and tariff developments affecting the U.S. fisheries were followed closely, export and import trends in fishery products were also studied, and preparations were made for U.S. participation in international trade negotiations.

The Bureau, at the request of industry, initiated an aggressive educational and market promotion program aimed at restoring consumer confidence in fishery products as a result of a botulism incident which reflected adversely on the canned tuna market. This program was successful and restored tuna sales to their normal level. Fish cookery demonstrations were conducted to teach new methods of preparing farm-raised fish, and additional market outlets for these products (buffalofish and catfish) were explored and liaison services were provided between market sources and farm-fish producers.

In the Atlantic Ocean biological research was intensified in response to the impact of foreign fleets on stocks off New England. Management of the important groundfisheries continued under the International Commission for the North west Atlantic Fisheries. Cod, haddock, flounder, and redfish were under regulation based on the Bureau's biological research. Reliable catch predictions were made for these fishes also. The seas between Africa and South America were the scene of the large scale International Cooperative Investigations of the Tropical

Atlantic. Bureau biologists were instrumental in planning this 11-vessel undertaking, and the Bureau's vessel *Geronimo* participated in the investigations.

The several species of tuna constituted the major subject of biological research in the central Pacific Ocean. Understanding of the relation between ocean conditions and abundance of skipjack tuna in the Hawaiian Islands was greatly, improved. Contributory steps were discovery of ocean-atmosphere relations, development of means to recognize independent stocks, and an increase in the understanding of skipjack sensory perception of the biological environment.

In the North Pacific Ocean interest centered around salmon and groundfish. Information was obtained on Japan and U.S.S.R. fishing for salmon in the western North Pacific and for bottom fish in the eastern Bering Sea and North Pacific Ocean. Six observers were placed aboard Japanese fishing vessels to collect data on fishing effort, amount of catch. and size and age of fish caught. Comprehensive reports are under preparation on the offshore distribution of all six species of Pacific salmon. These will form an extremely useful background for international negotiations.

In addition to work in the two oceans, valuable research was done in the important estuarine and inland areas. Experimental work with shellfish larvae has shown the possibilities inherent in selective breeding. Some stocks have unusual tolerance to low temperature, low salinity, and other adverse factors. Methods and some stocks are available to begin genetic studies. Thus the first steps have been taken toward development of selective breeding methods that will help the shellfish industry. Artificial culture of oysters is being approached through laboratory studies preliminary to full-scale applications. Much valuable knowledge, leading toward improved management, was obtained for Great Lakes fishes. Material from both experimental fishing and commercial catches was studied for Lakes Michigan, Superior, and Erie. Data on abundance, distribution, year class strength, and general life history were secured, in addition to discoveries as to the relation of fish to their environment.

Tracking studies completed in upper Snake River indicated that salmon moved upstream in a normal manner after the 70-mile transport around Brownlee Reservoir. Prototype tests of giant fyke nets for sampling entire turbine discharge up to 13,000 cubic feet per second were completed. The results of Ice Harbor fishway studies were submitted to State fishery agencies of Oregon, Washington, and Idaho. These findings will permit the installation of steeper and less costly fishways at three Corps of Engineers' dams now under construction in the Columbia and Snake Rivers. Guiding and collecting experiments at the head of Brownlee Reservoir were completed and it was determined that guiding efficiency of long lead nets under reservoir conditions is relatively low. Future efforts to collect juvenile chinook salmon migrants will be concentrated in streams tributary to the reservoir. There is evidence that diseases of upstream migrating adult salmon may be controlled by treating with chemicals such as malachite green, sulfa drugs, and vaccines.

Fourteen applications for mortgage insurance were received and 13 applications were approved. With the more general acceptance of the program by banks the interest rates charged have decreased slightly.

Results from operation and maintenance of the facilities and improvements constructed under the Columbia River fishery development program are promising. The hatchery program has been operating at full capacity. The largest silver salmon run in the Columbia River in the past 28 years produced approximately 52 million eggs at program hatcheries. Outstanding adult spring chinook salmon returns to Carson and Eagle Creek National Hatcheries produced over 3 million eggs at each station in calendar years 1962 and 1963. The Skamania steelhead hatchery in the State of Washington received a return of approximately 800 fish in 1963, of which over 90 percent of the adults were marked, and the run more than doubled the parent run. The egg take of fall chinook has been adequate to fill to capacity the 16 hatcheries that rear this species, although the total runs of fall chinook into the Columbia River have been erratic. Approximately 7½ million young chinook salmon at program hatcheries were marked by excision of fins and released in 1963 as a part of the overall hatchery appraisal program. Encouraging reports of catches of 2-year-old marked fish in the ocean have been received. Program fishways constructed at natural barriers are receiving excellent utilization, and in 1963 a total of 18,500 adult fish were counted at four of the fishways. Screening of water diversions has resulted in an increase of salmon in the Lemhi River, Idaho, and a strong resurgence of steelhead runs in the John Day River, Oreg.

The Bureau's objectives for the budget year are to maintain a favorable rate of progress toward the goals outlined in the Bureau's long range report "Trident" and the national oceanography program and to fullfill its responsibilities with regard to such other problems as botulism poisoning and the effects of pesticides. The increase requested for oceanographic programs includes operation and maintenance costs of new facilities and vessels; expansion of research programs in fish physiology and behavior, plankton studies, biological and physical oceanography, and exploratory fishing; and for new programs, including detailed oceanographic studies in the eastern tropical Pacific, in the trade wind zone of the central Pacific, and in coastal and offshore areas of the Gulf of Alaska. The budget also provides funds for botulism and pesticide studies important to the health of the American public as well as the future of our country's fishing industry. Research on *Clostridium botulinum* type E will be conducted in cooperation with other Federal agencies to establish methods of eliminating the public health hazard of botulism poisoning from seafood products. Recent cases of smoked fish poisoning resulted in seven deaths and severe economic injury to the fishing industry.

Biological research will be conducted to determine the effects of pesticides on aquatic life in its natural environment. Technological research will be conducted to establish when, and under what conditions, pesticides are taken up by fish and shellfish, and how to modify processing procedures to minimize harmful residues in fishery products offered for consumption. These studies will help to eliminate health hazards to the public and protect the economic position of the fishing industry.

Programs under the research in fish migration over dams activity will be continued with the level of effort reduced on studies involving racial migration rates and time of migration, and the transportation of adult and juvenile salmonoids. The fishing vessel mortgage insurance program will be continued at the same level as in 1964.

The Federal-State Columbia River fishery development program designed to offset losses to salmon and steelhead runs resulting from Federal water-use developments in the Columbia River Basin will be continued, with additional emphasis on the program for appraisal of project results. The Columbia River salmon runs are a vital part of the highly important and valuable Pacific coast salmon industry. Damage to these runs have been mitigated through construction and operation of hatcheries, fish screens, fish ladders, and stream clearance.

*Management and investigations of resources*

| | |
|---|---|
| Appropriation, 1963 | $15,225,000 |
| Supplemental appropriation, 1963 | 658,400 |
| Total appropriation, 1963 | 15,883,400 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration | −29,285 |
| Total available, 1963 | 15,854,115 |
| Appropriation, 1964 (total available) | 17,832,900 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration | −8,666 |
| Total available, 1964 | 17,824,234 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | |
|---|---|
| Management: To provide for increased pay costs for fiscal year 1964 positions | +9,366 |

*Management and investigations of resources*—Continued

| | |
|---|---|
| Marketing and technology: | |
| To provide for increased pay costs for fiscal year 1964 positions | +$69, 300 |
| For operation and maintenance of new facilities: Exploratory fishing vessel *Delaware* | +11, 500 |
| Technological-Biological Research Laboratory, Seattle, Wash | +30, 000 |
| For exploratory fishing and gear research projects | +140, 000 |
| For uncontrollable increased costs for fishery market news service | +30, 000 |
| To provide for botulism research program | +190, 000 |
| To provide for technological research on pesticides | +35, 000 |
| Subtotal, marketing and technology | +505, 800 |
| Research: | |
| For nonrecurring item for disease resistant oyster brood stock research | −100, 000 |
| To provide for increased pay costs for fiscal year 1964 positions | +150, 200 |
| For operation and maintenance of new facilities: | |
| Technological-Biological Research Laboratory, Seattle, Wash | +50, 000 |
| North Pacific research vessel | +100, 000 |
| Laboratory, La Jolla, Calif | +187, 000 |
| Research vessel *David Starr Jordan* | +171, 000 |
| Research vessel *Townsend Cromwell* | +145, 000 |
| Radiobiological Laboratory, Beaufort, N.C | +6, 800 |
| Laboratory facilities, Oxford, Md | +5, 000 |
| Research Laboratory, Ann Arbor, Mich | +40, 000 |
| For North and Central Pacific oceanography | +550, 000 |
| For North Atlantic and Gulf of Mexico oceanography | +286, 000 |
| For cooperative oceanographic programs | +66, 500 |
| To provide for biological research on pesticides | +495, 000 |
| For radiobiolgical and shellfish studies | +100, 000 |
| To provide for employees compensation fund | +7, 900 |
| Subtotal, research | +2, 260, 400 |
| Research on fish migration over dams: | |
| To provide for increased pay costs for fiscal year 1964 positions | +10, 300 |
| To provide for reduction in operations | −100, 000 |
| Subtotal, research on fish migration over dams | −89, 700 |
| Fishing vessel mortgage insurance: To provide for increased pay costs for fiscal year 1964 positions | +800 |
| Columbia River fishery facilities: | |
| To provide for increased pay costs for fiscal year 1964 positions | +10, 100 |
| To provide for fixed commitments for operation and maintenance of program facilities | +160, 000 |
| Total | +170, 100 |
| Net increase, 1965 | +2, 856, 766 |
| Budget estimate, 1965 | 20, 681, 000 |

*Analysis by activities*

| Activity | Fiscal year 1963, amount available | Fiscal year 1964 | | |
|---|---|---|---|---|
| | | Total appropriation | Transfer [1] | Amount available |
| 1. Management | $374,048 | $393,600 | $2,866 | $390,734 |
| 2. Marketing and technology | 3,669,379 | 4,099,000 | 3,000 | 4,096,000 |
| 3. Research | 8,168,096 | 9,711,900 | 2,800 | 9,709,100 |
| 4. Research on fish migration over dams | 1,480,385 | 1,496,700 | | 1,496,700 |
| 5. Fishing vessel mortgage insurance | 43,500 | 41,800 | | 41,800 |
| 6. Columbia River fishery facilities | 2,086,546 | 2,089,900 | | 2,089,900 |
| Unobligated balance lapsing | 32,161 | | | |
| Total | 15,854,115 | 17,832,900 | 8,666 | 17,824,234 |

[1] Represents transfers to General Services Administration.

*Analysis by activities*

| Activity | Fiscal year 1963, amount available | Fiscal year 1964, amount available | Fiscal year 1965, estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. Management | $374,048 | $390,734 | $400,100 | +$9,366 | +$9,366 | |
| 2. Marketing and technology | 3,669,379 | 4,096,000 | 4,601,800 | +505,800 | +69,300 | +$436,500 |
| 3. Research | 8,168,096 | 9,709,100 | 11,969,500 | +2,260,400 | +150,200 | +2,110,200 |
| 4. Research on fish migration over dams | 1,480,385 | 1,496,700 | 1,407,000 | −89,700 | +10,300 | −100,000 |
| 5. Fishing vessel mortgage insurance | 43,500 | 41,800 | 42,600 | +800 | +800 | |
| 6. Columbia River fishery facilities | 2,086,546 | 2,089,900 | 2,260,000 | +170,100 | +10,100 | +160,000 |
| Unobligated banance lapsing | 32,161 | | | | | |
| Total | 15,854,115 | 17,824,234 | 20,681,000 | +2,856,766 | +250,066 | +2,606,700 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

## Bureau of Commercial Fisheries

*Management and investigations of resources, analysis by activities (total funds)*

| Activity | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| 1. Management: Direct appropriation (adjusted 1963-64) | $374,048 | $390,734 | $400,100 | +$9,366 |
| 2. Marketing and technology: | | | | |
| Direct appropriation (adjusted 1963-64) | 3,669,379 | 4,096,000 | 4,601,800 | +505,800 |
| (Special foreign currency program) | 125,000 | 125,000 | 125,000 | |
| Saltonstall-Kennedy funds | 1,988,541 | 2,010,800 | 2,010,800 | |
| Subtotal | 5,782,920 | 6,231,800 | 6,737,600 | +505,800 |
| 3. Research: | | | | |
| Direct appropriation (adjusted 1963-64) | 8,168,096 | 9,709,100 | 11,969,500 | +2,260,400 |
| (Special foreign currency program) | 175,000 | 175,000 | 175,000 | |
| Saltonstall-Kennedy funds | 2,469,920 | 2,511,000 | 2,511,000 | |
| Subtotal | 10,813,016 | 12,395,100 | 14,655,500 | +2,260,400 |
| 4. Research on fish migration over dams: | | | | |
| Direct appropriation (adjusted 1963) | 1,480,385 | 1,496,700 | 1,407,000 | −89,700 |
| Saltonstall-Kennedy funds | 249,454 | 250,000 | 250,000 | |
| Subtotal | 1,729,839 | 1,746,700 | 1,657,000 | −89,700 |
| 5. Fishing vessel mortgage insurance: direct appropriation | 43,500 | 41,800 | 42,600 | +800 |
| 6. Columbia River fishery facilities: direct appropriation (adjusted 1963) | 2,086,546 | 2,089,900 | 2,260,000 | +170,100 |
| Total | 20,829,869 | 22,896,034 | 25,752,800 | +2,856,766 |
| Direct appropriation (adjusted 1963-64) | 15,821,954 | 17,824,234 | 20,681,000 | +2,856,766 |
| (Special foreign currency program) | 300,000 | 300,000 | 300,000 | |
| Saltonstall-Kennedy funds | 4,707,915 | 4,771,800 | 4,771,800 | |

### 1. Management

| Activity | Fiscal year 1963, amount available | Fiscal year 1964, amount available | Fiscal year 1965, estimate | Increase (+) or decrease (−, 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | program |
| Enforcement and administration of international convention acts and regulations | $374,048 | $390,734 | $400,100 | +$9,366 | +$9,366 | |

[1] To provide for increased pay costs for fiscal year 1964 positions.

#### ENFORCEMENT AND ADMINISTRATION

The estimate for 1965 is $400,100, an increase of $9,366 over 1964. The increase is for pay costs.

*1. Enforcement of Sockeye Salmon, Northern Pacific Halibut, North Pacific Fisheries, Northwest Atlantic Fisheries, Eastern Pacific Tuna Fisheries, Fur Seal, and Whaling Convention Acts*

*Plan of work.*—To continue the enforcement of restrictions on fishing, whaling, and sealing as provided by law and regulation which implement the treaty obligations of the United States. Seventeen full-time agents and several seasonal employees are actively engaged in the program in Alaska, Washington, Oregon, California, Maine, and Massachusetts. Patrols by vessel and aircraft are carried out under cooperative arrangements with the Coast Guard for offshore waters of both coasts and for enforcement of the Sockeye Salmon Act in Puget Sound waters. In addition, the Bureau operates one seagoing vessel in Alaska, the *John R. Manning*. Continued expansion of foreign fishing fleet operations off U.S. coasts will require continual surveillance. Dockside inspection of catches by U.S. vessels is conducted at fish ports on the Pacific coast from southern California to the Canadian border, and at major ports in New England.

*2. Administration of Northwest Atlantic Fisheries Convention Act.*

No increase requested.

*Plan of work.*—To continue collection and analysis of statistical information relating to current conditions and trends of the fishery resources of the northwest Atlantic Ocean and to conduct studies concerned with the maintenance of the northwest Atlantic fisheries as required under provisions of the International Convention for the Northwest Atlantic Fisheries (art. VI, par. 3).

*2. Marketing and technology*

| Subactivity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Economics | $200,193 | $171,100 | $176,000 | +$4,900 | +$4,900 | ---------- |
| (b) Exploratory fishing and gear development | 912,143 | 1,219,800 | 1,383,300 | +163,500 | +12,000 | +$151,500 |
| (c) Market news | 572,803 | 595,800 | 640,000 | +44,200 | +14,200 | +30,000 |
| (d) Statistics | 357,857 | 356,500 | 365,500 | +9,000 | +9,000 | ---------- |
| (e) Technology | 1,498,001 | 1,589,900 | 1,869,000 | +279,100 | +24,100 | +255,000 |
| (f) Foreign fisheries and trade | 97,704 | 127,300 | 131,000 | +3,700 | +3,700 | ---------- |
| (g) Education and market development | 30,678 | 35,600 | 37,000 | +1,400 | +1,400 | ---------- |
| Total | 3,669,379 | 4,096,000 | 4,601,800 | +505,800 | +69,300 | +436,500 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

(a) *Economics*

The estimate for 1965 of $176,000 is an increase of $4,900 over 1964. This increase is for pay costs.

*Plan of work.*—The general objective of the Bureau's economics program is to provide technical assistance in the form of research and services for the commercial fishing industry which will enable the industry to achieve its potential as a source of gainful employment for labor and capital and thus contribute a maximum to national income. Some of the economic problems that require study to attain this objective are increased competition from imports, increased competition for the marine resources per se as a result of increased fishing effort by foreign countries and fishery product transport problems. The industry has not experienced the growth and expansion prevalent in the general economy. A continuation of this process would eventually be reflected in a substantial reduction in the quantity of resources utilized and marketed by the domestic industry. The Bureau's economic programs are designed to counteract such a trend. These programs consist of (1) a program of current economic analysis to develop a series of economic situation and outlook reports to provide the Bureau and industry a continuing analysis of the current economic conditions in the major sectors of the commercial fishing industry as an aid in furnishing data and information to assist industry and Government in decisionmaking, (2) a program of basic economic research to determine and analyze the basic underlying economic principles operative in the commercial fishing industry as support to the program of current economic analysis and to coordinate with the work of other divisions of the Bureau to achieve the objectives of the Bureau's trident program, and (3) a program of economic services to discharge responsibilities delegated to the Bureau in the area of transportation by the Agricultural Marketing Act of 1946, as amended (7 U.S.C. 1621–1627), and a Bureau of the Budget determination (23 FR 2304, Mar. 22, 1958), and for fishery cooperatives by the Fishery Cooperative Marketing Act of 1934 (48 Stat. 1213).

(b) *Exploratory fishing and gear development*

The estimate for 1965 of $1,383,300 is an increase of $163,500 over 1964. The increase includes $12,000 for pay costs and $151,500 for program increases. The entire program increase is to provide for the essential resource-utilization aspects of the national oceanography program. Of the total program increase, $11,500 is for uncontrollable costs for maintenance and operation of a new vessel, and $140,000 is to provide for exploratory fishing and gear research projects. The increases proposed for fiscal year 1965 will not require any increase in overall Bureau employment over that authorized for fiscal year 1964.

(1) Operation and maintenance of new facilities:

*Need for increase.*—An increase of $11,500 is needed to provide for uncontrollable costs associated with the maintenance and operation of the vessel being constructed to replace the exploratory fishing vessel *Delaware*. The new vessel, financed with funds appropriated in the fiscal year 1962, is scheduled for completion in December 1964 The additional operation and maintenance costs for approximately 6 months includes $2,500 for special stern trawler nets, $7,200 for fuel and lubricating oils, and $1,800 for hull and deck maintenance.

(2) Exploratory fishing investigations and gear research projects:

*Need for increase.*—The increase of $140,000 is needed to undertake exploratory fishing investigations off the Pacific coast of the State of Alaska where only a limited amount of such work has been done; to compile a national inventory of the characteristics, concentrations, and seasonal movements of the individual species of fish and shellfish of the Continental Shelf and Continental Slope; and to undertake important gear research work at our Panama City, Fla., Gear Research Station.

The very important shrimp and king crab fisheries of Alaska cannot be expanded because there are now no known new fishing grounds available to the industry. The tremendous increase in shrimp and king crab production during the last few years has resulted in maximum utilization of previously discovered grounds much sooner than anticipated. The present level of activity in the king crab industry, owing to the rapidly increasing consumer demand for its products, is only a fraction of that possible, providing new fishing grounds are located. The limited amount of exploratory work which has been carried out, in addition to locating many of the presently utilized king crab and shrimp grounds, has indicated there are additional grounds which could support a much larger industry than now exists. Other nations are now exploring for these shellfish south of the Alaska Peninsula; the success of these explorations would place our domestic fishermen under a disastrous competitive disadvantage. It is essential, therefore, that the proposed program be initiated without delay. The total shellfish exploration effort will provide, when completed, a basic inventory of the shellfish potential of the Continental Shelf areas from Dixon Entrance to the Aleutian Islands in the Pacific.

The extensive data developed by past, current, and proposed exploratory fishing programs, on the communities of fishes and shellfish inhabiting the Continental Shelf and Slope, and the observations on topographic, meteorological, ecological and mass water movements resulting from this work, will be compiled, interpreted and published in a readily understandable form useful to the fisherman. This resource inventory, based primarily on the findings of over 10 years of explorations, will be of great value (1) to our fishermen as a basis for a scientific and efficient system of fishing, (2) in our international treaty negotiations on the fisheries of both the Atlantic and Pacific, and (3) in evaluating the impact on our offshore resources of the increasing fishing pressure by foreign fleets. This information will also reveal those gaps in our present knowledge of resource availability which require immediate attention; would facilitate operational planning and prevent duplication of effort. Our obligation to supply national synopses of our explorations and results, coupled with interpretive summaries and transvisual presentations on known resource potentials, can be met through this proposed investigation.

The proposed gear research work is aimed at developing economical methods of extending the present search capabilities of vessels harvesting pelagic species of fish. Recent design advances in closed-circuit television and the development of a towed "flex wing" offer one avenue of approach for successful development of extended-search techniques for locating pelagic species of fish. A particular advantage of this approach is the possibility of extending the search area significantly both horizontally as well as vertically, below the surface of the ocean. This would be of tremendous benefit in locating commercial concentrations in oceanic areas where great distances from land are involved and no hydrographic information is available which could be used for determining the presence of subsurface fish schools. Although the initial application envisioned is for the tuna industry, this, and other systems to be investigated, would probably have application in other pelagic fisheries such as herring, menhaden, and mackerel.

*Plan of work.*—For the Alaska explorations, a suitable vessel would be chartered on a full-found basis. Initial work would extend from Prince William Sound to Kodiak Island and from inshore waters seaward to 100 fathoms. Particular attention, during initial operations, would be directed at locating commercial shrimp and king crab concentrations in areas near existing processing centers. The location of inshore stocks of shrimp within reach of small vessels, which

presently lie idle during the off season for salmon, would be an important facet of initial operations.

Under the supervision of existing Bureau personnel all exploration data collected to date will be compiled, analyzed, and interpreted by an agency specializing in the handling of large amounts of data in automatic data processing equipment. Studies of various methods of data presentation will be contracted to qualified organizations to determine their relative informative usefulness to fishermen, scientists, and administrators. Independent agencies would then be contacted and contracts initiated to integrate the findings of our intensive Federal oceanographic programs to attempt to find a causal relationship between fish concentrations and one or more oceanographic, topographic, and ecological factors, which causal relationship may enable us to help place commercial fishing operations on a more firm scientific basis.

In carrying out the gear research investigations, flex-wing devices, capable of supporting a 200-pound payload at vessel speeds of 8 to 10 knots, will be acquired and fitted with a closed-circuit television for location of offshore fish schools. The television camera will be equipped with optics capable of standard telephoto and polarized viewing. The vehicle will be towed by the research vessel *Oregon* at various heights and used to scout for schools that are not visible from the vessel. The trials would be undertaken while the vessel is en route to fishing areas in the Gulf of Mexico and off the northeast coast of South America. During subsequent years, other search-extending methods, such as infrared radiation detection, will be investigated.

(*c*) *Market news*

The estimate for 1965 is $640,000, an increase of $44,200 over 1964. The increase includes $14,200 for increased pay costs and a program increase of $30,000.

*Need for increase.*—The $30,000 is needed to cover uncontrollable increased costs for postage, communication services, mimeograph paper, other supplies, and replacement of old processing equipment. A one-third increase in postage rates under Public Law 87–793, a steady increase in mailing lists, higher rates for teletype messages, and higher prices for supplies and other operating expenses—all these entail built-in increased costs at field stations over which there is no control. In addition to these, there are similar increased operating and mailing costs for commercial fisheries review (CFR) in the central office. The CFR keeps the industry informed on current trends and developments in the United States and foreign countries.

*Plan of work.*—To continue at the present level to collect, compile, publish, and disseminate data on fishery landings, receipts, prices, stocks, packs, market conditions, trends, imports, rail and truck movements, and information on developments in this country and foreign countries affecting our fishery industries. Information is distributed by daily, monthly, annual and other periodic reports; through newspapers, periodicals, and radio, and by telephone, wire, and personal contacts. Work is performed by Bureau employees. This information is used primarily by the fishery and allied industries and is not available from any other source.

(*d*) *Statistics*

The estimate for 1965 of $365,500 is an increase of $9,000 over 1964. This increase is for pay costs.

*Plan of work.*—To conduct statistical surveys of the fisheries of the United States. These include the collection, tabulation, analyzing, and dissemination of information on (1) the volume and value of the catch of each species by types of gear, area of capture, and point of landing; (2) the number and quantity of operating units employed in the fisheries; (3) the volume and value of processed fishery products; (4) monthly freezings and stocks of frozen fish; (5) monthly production of fish meal and oil; (6) the publication of monthly State landing bulletins; (7) release of monthly foreign trade statistics; and (8) the conduct of staff activities relating to statistical matters.

(*e*) *Technology*

The estimate for 1965 is $1,869,000, an increase of $279,100 over 1964. The increase includes $24,100 for pay costs; $30,000 for uncontrollable costs incident to the occupancy of, and operating and maintenance costs in connection with, new laboratory space at Seattle, Wash.; $190,000 for research on botulism; and $35,000 for pesticides research. The increases proposed for fiscal year 1965 will not require any increase in overall Bureau employment over that authorized for fiscal year 1964.

(1) Operation and maintenance of new facilities:

*Need for increase.*—An increase of $30,000 is needed to meet the uncontrollable costs of moving the technological research unit at Seattle, Wash., to the new Biological-Technological Laboratory and for additional building operation and maintenance costs to the technological unit, on a prorated basis, for a 6-month period. The new facility is scheduled for completion in December 1964. The cost of moving equipment, furniture, supplies and materials, etc., is estimated at $10,000. Additional operation and maintenance costs are estimated at $20,000. The $20,000 includes salary costs for operating and maintenance personnel, janitorial and security services, janitorial and maintenance supplies, electricity, heat, water, and telephone. The estimated cost of moving and the estimated additional operation and maintenance costs were developed by a Bureau building committee based on a survey of local costs and experience in operating and maintaining the old facility.

(2) Research on clostridium botulinum type E:

*Need for increase.*—An increase of $190,000 is needed to initiate a program in cooperation with other Federal agencies that will establish methods for eliminating the contamination from seafood products which in some cases has resulted in a public health hazard. The recent cases of smoked fish poisoning, which resulted in seven deaths and severe economic injury to the Great Lakes fishing industry, point out the potential danger that will continue to face the fishing industry until this problem has been solved. This program will be carried out by utilizing research agreements with qualified universities or public or private research institutions.

Food poisoning from type E clostridium botulinum has been commonly associated with fishery products. In the past 33 years, 24 deaths in the United States were attributed to this toxin, and 11 of these fatalities occurred since 1960. In calendar year 1963 alone, nine fatalities, the highest recorded number in any one year, resulted from the consumption of seafood (canned tuna and smoked fish) contaminated with the neurotoxin of the botulinum organism. In addition to the loss of human life, these incidents have had an adverse impact on the American public's confidence in seafoods. The smoked fish industry has virtually ceased operations and the national consumption of fresh, frozen, and other preserved seafood products has fallen off greatly. Government officials, American consumers, and those who obtain their livelihood from the catching, processing, and marketing of seafood are deeply concerned about this grave situation and the possible catastrophic effects of any future outbreaks.

Years of concentrated research effort in the canned food industry have produced processing methods to protect the American public from types A and B botulism poisoning, diseases that took a large toll of human life in the infancy of home canned foods. The type E organism has not been adequately studied, however, and consequently techniques are not available to prevent its deadly toxin from occurring in seafood products. There is a lack of scientific information on the distribution of cl. botulinum in the environment, the methods used to transfer the organism from its natural habitat to fish flesh, and the role that commercial fish processing, packaging, or handling methods play in encouraging or discouraging organism growth and formation of the fatal toxin in seafoods. The absence of prima facie evidence on the contributory role of these suspected conditions or processes makes it impossible to establish preventative measures. These and other interlocking variables must be thoroughly studied, their role precisely defined, corrective techniques established and properly applied in the fishing industry.

*Plan of work.*—This program will (1) determine the natural distribution of the clostridium botulinum organism in the environment, (2) study the biochemical and processing factors that contribute to organism growth and the formation of highly fatal toxin in fish and fishery products, (3) develop quality control methods for preventing the development of this fatal toxin in seafood products, and (4) advise distributors, retailers, and consumers in the proper and safe handling of fishery products.

Surveys will be conducted in the Great Lakes and New England areas to determine the location and abundance of the botulinum type E organism. Using existing Bureau vessels, samples will be obtained from waters, mud, plankton and other parts of the marine and fresh water environment. These surveys will be extended to fishing vessels and fish processing plants in an effort to pinpoint possible sources of contamination. The sanitary conditions of the vessels and processing plants and other observations will be correlated with the occurrence of the botulinum organism.

Laboratory research will be conducted to determine how the botulinum organism is transferred to fish flesh and chemical and physical techniques will be used to establish methods for preventing or reducing contamination. These investigations will be supplemented by more fundamental studies designed to define the conditions in fish flesh that contribute to the support, growth, and toxigenicity of *Clostridium botulinum* type E.

Processing studies will be carried out to establish measures for rendering the organism or its lethal toxin ineffective. Control samples of different species of fresh seafood will be innoculated with botulinum organism and subjected to various predetermined processing variables involving different smoking procedures, temperatures, and packaging environments. Thermal death times will be established for destroying the organism and the toxin it produces. Studies will also be conducted to ascertain the effect of salt, nitrites, antibiotics, and other chemical additives in reducing the thermal resistance of the organism or in completely inhibiting its growth and the formation of toxin. The effect of vacuum and air packaging methods will also be studied to establish completely acceptable and safe methods of packaging fresh and smoked fish. Steps will be taken to convey the results of the research to consumers, wholesalers, and processors to enable them to readily employ methods that will insure the marketing of wholesome and safe seafood products. This will be accomplished through the use of seafood merchandising clinics and television, radio, and other mass media.

(3) Pesticides studies:

*Need for increase.*—An increase of $35,000 is needed for studies leading to the control and removal of possible harmful residues in human food products derived from fish and shellfish. These food product-oriented studies are designed to complement the Bureau's research on the effects of pesticides on the living resource, which is financed under the research activity. The expanding use of chemicals to control insects, weeds, fungus, etc., has caused great apprehension among our leading food researchers and the American public. There is a wealth of evidence to indicate that the pesticide levels in all foods are increasing and may reach levels of concern for the health of mankind. The proposed studies will be carried out by utilizing research contracts with appropriate public or private institutions.

There has been very little research on the gross effect of pesticide residues in marine organisms on the nutritional value or wholesomeness and safety of human food produced from these organisms. Although we do not fully understand the effects of these compounds on our health, many doctors have recommended that human intake of pesticides be kept at minimum levels until safe tolerances are established. The proposed studies will (1) determine the level and locations of pesticides and their metabolized products in the body oils and edible muscle of the many species of fresh water and marine fish and (2) will develop processing techniques designed to remove pesticide residues from the edible portions of fishery products.

*Plan of work.*—During the first year, a survey of biochemical and physiological publications dealing with estuarine and offshore fishing areas will be made to obtain specific information on the types of pesticides which can be deemed to be prevalent in marine organisms. Fish and shellfish will be sampled from such areas at predetermined intervals and analyzed by chemical or other analytical procedures. Data will be gathered on the types and quantities of pesticides present and on the distribution of these chemicals in the flesh, oil, and organs. During the second year, studies will be conducted to determine the movements of various pesticides through the body of the fish or shellfish after being ingested and their ultimate location in the body. These more fundamental investigations will enable the Bureau to determine the susceptability of both edible and nonedible portions of fish and shellfish to contamination by different pesticides. After data is compiled on the levels of pesticides in various parts of the fish, research will concentrate on methods of inactivating or eliminating these residues from the processed fishery product. The effectiveness of various heating, chemical, and biological processes as pesticide inactivators will also be determined and procedures will be established to assure the safe processing of marine life exposed to pesticide-contaminated environments. Successful completion of this research will assure that the edible portions of fish and shellfish available to the American public are safe and nutritious.

*(f) Foreign fisheries and trade*

The estimate for 1965 of $131,000 is an increase of $3,700 over 1964. This increase is for pay costs.

*Plan of work.*—Foreign fishery activities and developments have direct bearing on the status of the U.S. fishing industry and on the foreign and domestic policies

and programs of the U.S. Government. Information on, and analysis of, foreign fishery developments supply background materials necessary in determining U.S. policy and actions in programs concerned with high-seas conservation and management, international trade, technical assistance, and intergovernmental fishery development projects. The Bureau is responsible for collecting, coordinating, analyzing, and evaluating current intelligence information on the technological, biological, and economic aspects of the fisheries of foreign countries. The Bureau also participates actively in fishery programs and activities of international organizations, and provides services relating to trade and tariff matters as they affect the U.S. fisheries. To achieve these objectives the foreign fisheries subactivity has programs in foreign reporting, international organization affairs, and trade and tariff investigations.

The foreign reporting program will:

(1) Conduct and service the foreign reporting program for fisheries; service the fishery attaché program; coordinate and prepare requests for current information from Foreign Service posts; take appropriate actions regarding incoming dispatches; and disseminate information received from abroad to industry and Government.

(2) Provide current reports on the status of foreign fisheries.

(3) Evaluate the effects of accelerated foreign fishery expansion programs on various segments of the U.S. fishing industry, and assist in determination of solutions to foreign competition problems.

The international organization affairs program will:

(1) Coordinate and/or participate in Bureau preparations involving meetings and activities of international organizations, such as Organization for Economic Cooperation and Development (OECD), Food and Agricultural Organization (FAO), United Nations Educational, Scientific, and Cultural Organization (UNESCO), U.N. Special Fund, and regional FAO councils and commissions.

(2) Take appropriate Bureau actions regarding fishery programs of intergovernmental and other international organizations; collaborate with other U.S. agencies on international organization matters requiring interdepartmental action.

(3) Coordinate and/or prepare U.S. position papers, background papers, contingency papers, briefing books, and other supporting materials dealing with fishery matters for use at international meetings.

(4) Prepare reports and publications on the activities and meetings of international organizations for use of Government officials and the U.S. fishing industry.

The trade and tariff program will:

(1) Prepare background papers, current reports, position papers, and recommendations for actions on legislation, interdepartmental trade and tariff considerations, and international meetings concerned with trade and tariff matters.

(2) Conduct studies and provide services on trade and tariff problems, analyze import and export trends in relation to problem areas, and determine impact of trade and tariff developments on the domestic industry.

(3) Assist in determining solutions to foreign competition problems arising from trade and tariff developments.

(*g*) *Fishery education and market development*

The estimate for 1965 of $37,000 is an increase of $1,400 over 1964. This increase is for pay costs.

*Plan of work.*—The development of fish farming into a prosperous industry will have a healthy impact on the economy of Arkansas and the adjoining States in the Mississippi River Delta area. The Arkansas rice-fish farm program has now developed to the point where the Bureau's marketing efforts in developing increased sales and markets for rice-farm-produced fish need to be intensified. Work will be conducted to develop new and appealing products from buffalofish and catfish which are the principal species now being harvested in these areas. Development of additional recipes to meet the specialized needs of institutional, school lunch, restaurant, and consumers will be continued. New recipes will be developed to include smoked and barbecued ribs, portions, and boneless bologna shaped rolls in fish cookery demonstrations throughout the States comprising the Mississippi Valley. Consumer acceptance tests will be conducted to determine acceptability of rice-farm species and new products. Continuing close relation will be maintained with the mass media (newspapers, magazines, radio, and tele-

vision) as a public service in supplying material to stimulate public interest in the use of these products.

In addition to funds shown under this activity, additional funds are available under the Saltonstall-Kennedy program as shown in the following table:

[In thousands of dollars]

| Subactivities | Annual definite appropriation | | Saltonstall-Kennedy funds | | Total program | |
|---|---|---|---|---|---|---|
| | 1964 | 1965 | 1964 | 1965 | 1964 | 1965 |
| (a) Economics | 171.1 | 176.0 | 158.8 | 158.8 | 329.9 | 334.8 |
| (b) Exploratory fishing and gear development | 1,219.8 | 1,383.3 | 391.9 | 391.9 | 1,611.7 | 1,775.2 |
| (c) Market news | 595.8 | 640.0 | 37.0 | 37.0 | 632.8 | 677.0 |
| (d) Statistics | 356.5 | 365.5 | 315.7 | 315.7 | 672.2 | 681.2 |
| (e) Technology | 1,589.9 | 1,869.0 | 467.7 | 467.7 | 2,057.6 | 2,336.7 |
| (f) Foreign fisheries and trade | 127.3 | 131.0 | ---------- | ---------- | 127.3 | 131.0 |
| (g) Fishery education and market development | 35.6 | 37.0 | 639.7 | 639.7 | 675.3 | 676.7 |
| Total | 4,096.0 | 4,601.8 | 2,010.8 | 2,010.8 | 6,106.8 | 6,612.6 |

*3. Research*

| Subactivity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Coastal and offshore research | $7,417,670 | $8,742,100 | $10,925,100 | +$2,183,000 | +$132,500 | +$2,050,500 |
| (b) Inland fisheries | 215,409 | 277,500 | 323,000 | +45,500 | +5,500 | +40,000 |
| (c) Shellfish | 498,821 | 643,600 | 666,000 | +22,400 | +10,600 | +11,800 |
| (d) Designing fish protective devices | 36,196 | 39,400 | 41,000 | +1,600 | +1,600 | ---------- |
| (e) Employees' compensation fund payments | ---------- | 6,500 | 14,400 | +7,900 | ---------- | +7,900 |
| Total | 8,168,096 | 9,709,100 | 11,969,500 | +2,260,400 | +150,200 | +2,110,200 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

(a) *Coastal and offshore research*

The estimate for 1965 is $10,925,100, an increase of $2,183,000 over 1964. The increase includes $132,500 for increased pay costs, $653,000 for uncontrollable increased operating and maintenance costs for new facilities, $902,500 for expansion of oceanographic research programs, and $495,000 for pesticides research. The increases proposed for fiscal year 1965 will not require any increase in overall Bureau employment over that authorized for fiscal year 1964.

(1) Operation and maintenance of new facilities (oceanography):

*Need for increase.*—An increase of $653,000 is needed for uncontrollable operating and maintenance costs for new facilities that will be completed and put into operation during the fiscal year 1965, and for those new facilities in operation during a portion of fiscal year 1964 that must be operated for the full 1965 fiscal year. The facilities involved are listed below:

| Facility | Estimated completion date | Additional fiscal year 1965 O. & M. costs |
|---|---|---|
| (a) Laboratory, Seattle, Wash | December 1964 | $50,000 |
| (b) North Pacific research vessel | June 1965 | 100,000 |
| (c) Laboratory, La Jolla, Calif | August 1964 | 187,000 |
| (d) Research vessel *David Starr Jordan* (*Black Douglas* replacement) | October 1964 | 171,000 |
| (e) Research vessel *Townsend Cromwell* (Central Pacific Ocean) | November 1963 | 145,000 |

The cost estimates reflected under this item were developed on the basis of Bureau experience in operating and maintaining similar facilities, local surveys, and data furnished by building designers and other operators of similar facilities.

(*a*) The $50,000 increase for Seattle includes $10,000 for moving the biological research unit to the new biological-technological laboratory and $40,000 for additional costs to the biological research unit, on a prorated basis, for building operation and maintenance. Major items of increase included in the $40,000 are $12,000 for wages of operating and maintenance personnel, $14,000 for janitorial and security services, and $13,000 for utilities.

(*b*) Funds appropriated for the Bureau's construction program for fiscal year 1964 include $2,650,000 for construction of a fishery research vessel for use in the North Pacific and Bering Sea. The conduct of essential biological research programs planned for the North Pacific and Bering Sea area in the fiscal year 1965 are dependent upon the new vessel, or a suitable charter vessel substitute, being available from December through the end of the fiscal year. The $100,000 requested is needed to provide for either operation and maintenance of the new vessel or for vessel charter cost, during the December–June period. Operation and maintenance costs for the new vessel for the full period would include $60,000 for wages and related costs for officers and crew; $19,000 for basic ship supplies, including shop tools, linens, mess equipment, safety equipment, etc.; and $12,000 for fuel and lubricating oil. The balance of $9,000 would be for mess costs, vessel maintenance, and miscellaneous. Savings in operating and maintenance costs for any portion of the 6–7 month period that the new vessel is not available would be used to meet vessel charter costs.

(*c*) The $187,000 increase needed for the La Jolla, Calif., biological laboratory includes $100,000 for salaries, wages, and related costs for required operation and maintenance personnel; $39,000 for utilities; and $30,000 for building and grounds maintenance equipment and supplies. The balance of $18,000 is for moving costs, trash removal, shop equipment, and miscellaneous costs.

(*d*) The $171,000 increase needed for operation and maintenance of the research vessel *David Starr Jordan* includes $72,800 for wages and related costs for officers and crew; $31,000 for maintenance of electronic trawl gear, engines, galley and deck and hull; $30,000 for equipment; and $13,000 for fuel and lubrication oils. The balance of $24,200 is for mess costs, dockage, vessel shakedown overhaul and miscellaneous costs.

(*e*) The $145,000 increase needed for operation and maintenance of the research vessel *Townsend Cromwell* includes $70,300 for wages and related costs for officers and crew; $35,000 for vessel and equipment maintenance; $17,000 for mess supplies; and $21,000 for fuel and lubricating oils. The balance of $1,700 is for supplies and miscellaneous costs.

(2) North and Central Pacific oceanography (oceanography):

*Need for increase.*—An increase of $550,000 is needed for biological research programs in this area.

Several of the major fishing nations of the world are engaged in exploiting the fishery resources of the North Pacific. The United States is committed to an increase of its activities in this area through its treaty obligations and membership in various commissions. Furthermore, oceanic research activity must be expanded if we are to keep our industry in a favorable position in the world fishery trade and if our fishery scientists are to obtain the necessary information that will serve as the basis for further negotiations to conserve these valuable resources. Overfishing of yellowfin tuna, the erratic fluctuations of the salmon fisheries, and the fishing by other nations in waters and on stocks which historically have been harvested almost exclusively by Americans and Canadians, emphasizes the importance of the work.

The essential objective of the various programs to be undertaken is to achieve an understanding of the basic relationship between important fish species and their environment.

One important approach is to study variations in the distribution and abundance of fish in relation to variations in the physical properties of the ocean. Temperatures, salinity, currents, and other physical parameters form a changing but characteristic pattern from which predictions of abundance of any given fish stock may be made. For example, remarkable success has been achieved

in skipjack abundance predictions. Operation of a network of unmanned anchored oceanographic buoys for monitoring changes in the ocean is an essential feature of these expanded studies. The cost of obtaining such continuous observations from research ships would be prohibitive.

Each year scientists are uncovering new facts on the significance of trace elements to living organisms. The production of agricultural crops has increased significantly by the addition of certain trace elements to the soil. It is probable that production of fish can be similarly increased by an understanding and proper use of trace elements. Laboratory and field studies will be undertaken to measure the role of trace elements in the growth and survival of fish. These studies will use radioisotopes and neutron activation analysis. Differences in amounts of certain trace elements in the muscles and other parts of salmon may be useful for identifying river of origin of fish caught on the high seas.

Studies of the general biology of commercially important fish populations also must be expanded. For example, a knowledge of oceanic mortality becomes of utmost importance in predicting the size of returning salmon runs. Studies on the distribution of populations, migratory patterns, population structure and growth, species composition, plankton and bottom fauna dynamics (to assess and understand fluctuations in food organisms), and in larval fish taxonomy, are further examples of expanded studies that need to be undertaken.

The requested increase will permit the conduct of work required to relate the oceanographer's findings to the fishery, to increase our understanding of migratory patterns and population groups in relation to changes in distribution and abundance, and to increase our knowledge of predator-prey relationships as they are affected by the changing environment.

Studies in fish behavior, genetics, and physiology should be accelerated and will be possible with the availability of new shore facilities.

It is increasingly important to identify the racial origin of many important species. Such specialized studies using differences in scale growth patterns, blood types, and morphological studies will be expanded.

The North Pacific Ocean and Bering Sea are among the most critical areas for our fisheries today. A large portion of our Bristol Bay red salmon migrate far to the westward and are taken in large numbers by Japanese mothership fleets. Increasing intrusion of foreign fishing fleets into the fishing areas south of the Aleutians and into the Gulf of Alaska, to conduct both fishing and exploratory operations, make it mandatory that U.S. interests in the vast king crab, shrimp, and groundfish resources be supported by expansion of ocean fishery research studies. Knowledge of the migration and distribution of king crab obtained from tagging studies in international waters is necessary to effectively guard the interests of U.S. fishermen. To protect our fishermen and our industry, information on the magnitude and characteristics of the fishery resources off our coast is required as a basis for management and negotiation. The International North Pacific Fisheries Commission has requested that Bureau research biologists be placed as observers aboard the Japanese trawl vessels to monitor groundfish landings in order to determine the effects of trawling on the rich halibut resource of the Gulf of Alaska.

*Plan of work.*—This work involves projects to be conducted under the following programs:

(*a*) Oceanography of the trade wind zone of the central Pacific.
(*b*) Tuna and sardine biology of the eastern Pacific.
(*c*) Oceanography of the eastern tropical Pacific.
(*d*) North Pacific fishery and oceanographic investigations.

Portions of this research will be conducted in cooperation with various governmental agencies the Pacific coast States, universities, and oceanographic institutions. Contracts will be awarded for research work and vessel use, as required. Coordination and cooperation will also be carried on through various treaty organizations, commissions, intergovernmental and interagency organizations, and the National Academy of Sciences.

Automatic data processing equipment, telemetry, and instrumentation will be employed or developed to increase efficiency of all operations. Whenever possible, oceanographic and biological data gathered at sea will be processed while the vessels are at sea to make more data available for immediate use.

An advanced and detailed study will be carried out to investigate the way in which ocean and atmospheric climates are related to fishery problems. Present knowledge, which makes it possible to predict skipjack abundance from oceanographic data, suggests that a real understanding of the relationship between air-sea-fishery interactions is possible. It is important that we learn the "why" of these relationships in order that general statements can be made which would have application in other geographic areas and fisheries.

Other programs to be expanded include research on filter feeding fishes and plankton, involving rearing of delicate pelagic fish larvae for research use, studies of all developmental stages of fishes from tiny larvae to large sharks, investigation of plankton dynamics, by which to improve our understanding of available food in the ocean, and research on environmental conditions of the North Pacific.

Testing and further development of an existing prototype of an unmanned anchored oceanographic buoy is to be obtained through contract with the University of California, Institute of Marine Resources (IMR). IMR will operate and process data from a small network of buoys across the California current off southern California or Baja California, thereby gaining operational experience essential for the conduct of the eastern tropical Pacific program that is scheduled to follow. At the same time, this preliminary program will provide synoptic information for the present temperature tuna forecasting program and for cooperative research on sardines, mackerels, and anchovies.

Additional research will be done by scale analysis and serological techniques to determine continent of origin, and eventually river of origin of salmon and their places, times, and degrees of intermingling.

Biological studies on ocean growth and mortality of salmon will be extended to the Columbia or Fraser Rivers where a "pilot type" study of high seas and inshore fisheries will be started. The oceanographic data collecting and research program will be expanded by the use of unmanned free-floating buoys to continuously monitor ocean conditions in the North Pacific. This information will be processed immediately for application to problems of distribution and abundance of salmon and marine fish.

Laboratory studies on the relation of certain environmental factors (temperature, water quality, etc.) to the growth and survival of salmon and other fish using facilities available in the new biological laboratory will be started.

Studies on the role of trace elements in the environment will be started using radioactive and nonradioactive isotopes as tags to trace the utilization of these elements by fish or by their food organisms.

The increased ocean fishery research in Alaska will involve:

(*a*) Extension of present marine sampling cruises into Icy Straits, Frederick Sound, and Clarence Straits areas of southeast Alaska for ecological data on bottom and pelagic fish, shellfish, and salmon. More sophisticated oceanographic instruments will be used in addition to midwater and bottom trawl equipment.

(*b*) Sampling the estuaries and ocean near field research stations in Bristol Bay for red salmon juveniles and in Prince William Sound and southeast Alaska for young pink salmon to determine their growth, abundance, distribution, survival rates, and controlling environmental factors. Two small Bureau vessels, the *Heron* and *Sockeye*, will be refurbished and two additional 30-foot boats will be chartered for the above purposes.

(*c*) Tagging king crabs near the Shumagin Islands and westward by use of Bureau or chartered vessels. This will require a systematic sampling program to locate, capture, tag, and release the crabs. Close coordination with the fishery will be maintained for collecting tagged crabs, recording and interpreting information, and payment of rewards.

(*d*) U.S. observers who have technical knowledge of fish and familiarity with the Japanese language will board trawling vessels in Japan and accompany them on groundfish operations off the coast of Alaska. They will keep statistics on the composition of the Japanese catch, determine numbers of halibut caught, and gather information on age and growth of the important commercial species.

(3) North Atlantic and gulf oceanography (oceanography):

*Need for increase.*—An increase of $286,000 is needed for groundfish investigations in the North Atlantic, expansion of current gulf estuarine studies, support of taxonomic programs at two laboratories, and for oceanographic planning and coordination activities.

Expansion of the North Atlantic groundfish programs will permit the Bureau to (A) intensify surveys of the groundfish populations of the North Atlantic which have recently been subjected to increased fishing pressure, particularly by the Russian fleet, (B) make observation of environmental conditions and relate these to observed changes in abundance of groundfish or relative successes of spawning, and (C) assess the total effect of the recent increased fishing effort in terms of wise utilization of the resource, and upon the availability of fish to American fishermen.

Most fishery resources of the gulf area are "estuarine dependent," the organisms spending part or all of their lives in shallow inshore waters. Demands upon gulf coast water resources for residential, commercial, agricultural, and industrial development are rapirly altering and, in many cases, destroying estuarine nursery and harvest areas. The Bureau is called upon with increasing frequency to determine effects on fishery resources of construction projects employing channelization, spoiling, bulkheading, and filling, and to recommend corrective action, or alternative proposals. Expansion of our estuarine studies program is necessary to gain the knowledge needed to permit the Bureau to adequately carry out its responsibilities in this field. Studies of biogeochemical alteration, taking into account rates of degradation and reestablishment of biological communities relative to estuarine engineering, are required to provide a sound basis for recommendations made to preserve the fishery resources. It is also important that good estimates be made of present and potential values of the fishery resources supported by the gulf estuaries.

Additional funds are needed to increase the effectiveness of taxonomic studies being conducted at two Bureau laboratories. An increase for the Ichthyological Laboratory at Washington, D.C., is needed to finance research on the biology and taxonomy of crustaceans, particularly shrimp. Many crustacean species are of direct commercial importance; other forms are abundant and have no commercial value. Accurate identification of these species, especially in the drifting larval stages, and information on their life histories and distribution are essential for their effective utilization and management. The funds are needed for travel, translation, and procurement of laboratory equipment. Additional funds are needed at the Brunswick Laboratory to facilitate specimen collection and examination at commercial and sport fishing centers in the southeast. Also of vital importance is increased participation of the laboratory's staff in exploratory cruises of the research vessels *Silver Bay* and *Oregon* to collect and identify new marine organisms and to relate them to other species and to known oceanographic factors.

*Plan of work.*—The increased funds requested will be used as follows:

(*a*) The research vessel *Albatross IV* will be used in the conduct of groundfish studies. Intensive sampling will be carried out in the Northwest Atlantic, particularly on Georges Bank and surrounding waters, throughout the year. On planned special cruises extensive plankton collections will be made to estimate the extent of fish spawning, study the possible effects of fishing on the spawning stocks and determine the fate of the planktonic eggs and larvae. Examination of environmental conditions will be intensified in order to interpret intelligently the population changes which are observed. Variations in the success of year classes will be compared with variations in fishing effort and environmental conditions. Results will be used in advising management as to the need for additional fishery regulations, an important commitment of the United States to the International Commission for the Northwest Atlantic Fisheries.

(*b*) The increase in estuarine study funds will be used at Galveston, Tex., to begin field studies designed to document specific effects of manmade changes and to establish criteria for modifying construction plans in the best interest of fishery resources. The program also contemplates assessment of the value of estuaries to the fishery resource as a whole and will facilitate computation of the losses resulting from natural and man-induced alterations.

(*c*) The Ichthyological Laboratory receives shrimp specimens for study and classification from routine Bureau cruises, as well as special or cooperative programs such as the tropical Atlantic fishery oceanography program. As a result a considerable backlog of material has been building up which requires im-

mediate attention. Research on the taxonomy of this material will be conducted through a contract with a specialist in the field. Additional supporting aids required includes translation of foreign documents, a microscope and other laboratory equipment, preparation of scientific illustrations and travel.

The Brunswick Laboratory staff will classify and study the life histories of selected families, genera, and species of fishes of the western North Atlantic Ocean with emphasis on species occurring off the southeastern coast of the United States. This involves studies of early life histories, abundance, and distribution; and the distribution and abundance of zooplankton organisms associated with them.

(4) Cooperative oceanographic programs (oceanography):

*Need for increase.*—Increases totaling $66,500 are needed for the following purposes:

(*a*) $26,000 to allow the Bureau to pay a proportionate share of the increased costs of operating the National Oceanographic Data Center (NODC). The Center, which is supported cooperatively by Government agencies using its services, needs additional funds for expansion to keep pace with the growth of the National Oceanographic program and the ever-increasing volume of data. This is part of a planned program to bring NODC up to full operating capacity by about 1967.

The NODC is a respository for all physical and chemical oceanographic data. It performs an important service to the entire oceanographic community by analyzing vast amounts of oceanographic data through use of computers, by assisting in research planning through data analysis, by producing data summaries for specific areas and atlases for more general purposes, and by promoting the free flow of oceanographic information. NODC has the complete responsibility for continuing the function of World Data Center A-Oceanography and processing responsibility for data from the International Indian Ocean Expedition and other international cooperative programs. Its services are used very extensively by the Bureau's marine laboratories. The present-day oceanographer must examine large volumes of data in the course of his studies. He has been able to operate much more effectively as a result of the many services provided by the Data Center.

(*b*) $20,000 to make possible Bureau participation in oceanwide surveys being planned through the Interagency Committee on Oceanography. The objective of the survey is to map accurately the physical, chemical, and biological properties of the sea. Such maps are necessary for intelligent planning of research programs and for effective development and exploitation of ocean resources. The proposed survey program to be conducted by U.S. Government agencies in fiscal year 1965 is estimated to cost $25.7 million, an increase of about $5.5 million over the national survey program in fiscal year 1964.

(*c*) $8,000 for oceanographic planning and coordination within the Bureau, between agencies and internationally. The amount of staff time required to provide the Bureau with adequate representation on interagency and intergovernmental oceanographic programs and committees is growing rapidly along with the widespread interest in oceanographic research. Such coordination is necessary to avoid duplication of effort, and to make the most effective use of scientists, vessels, and shoreside facilities.

(*d*) $12,500 is requested for an instrumentation program. Present-day studies on physical oceanography and marine biological resources require specialized instruments for measuring environmental factors and for capture and study of the marine organisms. Most instruments now in use are in need of improvement, and new instruments must be designed.

*Plan of work.*—The increase will be used for the cooperative programs listed and for contracts for design, development, testing, and evaluation of instruments needed in Bureau research programs. Particular emphasis will be placed on the development and further improvement of telemetering buoy systems.

(5) Pesticide studies:

*Need for increase.*—An increase of $495,000 is required for urgently needed expansion of this program. The current research program has demonstrated that (*a*) marine species of commercial importance, as well as their food, are highly sensitive to many agricultural chemicals now used as pesticides; (*b*) these chemicals may be stored at greatly magnified levels in animals used as man's

food; and (c) the toxicity of these chemicals, and their persistence as residues, both in food and in the estuarine environment vary greatly. These variations are caused by variations in physical conditions of the environment, meteorological conditions at the time of application, and other factors yet unknown. The present program is staffed and equipped to evaluate adequately only a few chemicals per year. More than 100 pesticides now are in use in areas where they may endanger the marine environment. It is urgent that the program be augmented to evaluate the most widely used chemicals before injudicious use permanently damages some of the important estuarine areas or so contaminates man's food supply as to create serious health hazards. The program will be expanded in the following ways:

(a) Development of analytical procedures: Research is required in the adaptation, development, and standardization of more precise methods for qualitative and quantitative analysis of pesticide residues in plants and animals resident in the estuarine environment.

(b) Field studies on experiment scale: Toxicity factors determined under controlled laboratory conditions need to be confirmed under field conditions where environmental variations may alter the acute toxicity, transport, and persistence of the pesticide.

(c) Field studies on national scale: Large control programs conducted by various public and private agencies need to be carefully evaluated in areas where estuaries may be affected.

(d) State cooperative projects: Pre-spray and post-spray surveys and evaluations of smaller scale control programs such as for marsh mosquitoes, in regions having important estuarine nursery areas are needed. Essentially no information is available on the rate of decay or immobilization of pesticides in marsh or delta mud and sediment.

(e) Laboratory evaluation of new pesticides: It is planned that a Bureau Pesticides Registration Review Committee will be established which will be responsible for review of registration of all new pesticides.

*Plan of work.*—The same general plan of work now underway will be continued on an expanded scale. Emphasis will be placed on studies to determine the amounts of pesticides transported into estuaries under natural conditions in areas where fish and shellfish are being harvested, and on the development of bioassay and analytical techniques for determining presence in and effect of pesticides on marine species.

(b) *Inland fisheries*

The estimate for 1965 is $323,000, an increase of $45,500 over 1964. Of the increase, $5,500 is for pay costs and $40,000 is for uncontrollable increased costs incident to the occupancy of, and operating and maintenance costs in connection with, the new laboratory under construction at Ann Arbor, Mich. The increases proposed for fiscal year 1965 will not require any increase in overall Bureau employment over that authorized for fiscal year 1964.

(1) Operation and maintenance of new facilities:

*Need for increase.*—An increase of $40,000 is needed to meet the uncontrollable costs of moving the Ann Arbor, Mich., biological research unit from the University of Michigan grounds to the new biological laboratory and for the additional operation and maintenance costs of the new building. The new facility is scheduled for completion in December 1964. The cost of moving laboratory equipment, specimens, supplies, and furniture is estimated at $5,000. Operation and maintenance costs, which are estimated at $35,000, includes salary and related costs for operating and maintenance personnel, building and janitorial supplies, utilities, and equipment and supplies for grounds maintenance. The cost estimate for maintenance and operation for this 38,000 (gross) square-foot laboratory is based on cost data furnished by the superintendent of the University of Michigan powerplants and the manager of the university's building service unit.

(c) *Shellfish*

The estimate for 1965 is $666,000. This is an increase of $22,400 over 1964, which included a $100,000 nonrecurring item for disease-resistant oyster brood stock research. The increase, considering the nonrecurring item, includes $10,600 for increased pay costs, $11,800 for operation and maintenance of new

facilities, and $100,000 for additional research on shellfish culture and its application. The increase is for programs recommended in the national oceanographic program. The increases proposed for fiscal year 1965 will not require any increase in overall Bureau employment over that authorized for fiscal year 1964.

(1) Operation and maintenance of new facilities (oceanography):

*Need for increase.*—An increase of $11,800 is needed to meet uncontrollable increased costs for operation and maintenance of a new radiobiological laboratory at Beaufort, N.C., and new facilities, including service buildings, a salt water system, and shops at the Oxford, Md., laboratory. The Beaufort laboratory scheduled for completion in April 1964 will be in operation for approximately 9 months more in fiscal year 1965 than in fiscal year 1964. The additional operation and maintenance costs for the laboratory is $6,800, including $2,300 for salaries, $2,500 for utilities, and $2,000 for building maintenance and janitorial supplies. The Oxford facilities scheduled for completion in March 1964 will be in operation for approximately 8 more months in fiscal year 1965 than in fiscal year 1964. The additional operation and maintenance costs for the Oxford facilities are $5,000 including $2,200 for salaries, and $2,800 for electricity required for pumping operations. The additional cost estimate for Beaufort is based on the additional floorspace and facilities that will be available. The additional cost estimate for Oxford is based on operation and maintenance cost of similar facilities at other field stations.

(2) Shellfish culture and its application (oceanography):

*Need for increase.*—An increase of $100,000 is needed to accelerate the applied research work leading to the development of practical methods of increasing shellfish production and demonstrating these methods to the industry. Knowledge is now available concerning equipment and techniques for artificial propagation of bivalves, for the rearing of larvae to setting, and for maintaining juvenile stages for the first year of their existence. While it is possible to produce clams and oysters on a routine basis in the laboratory, techniques for expanding operations to a commercial scale hatchery are not yet developed sufficiently to demonstrate their feasibility. This increase will be used to expand experimental phases of the program concerned with rearing larvae and bivalves on a large scale in tanks and ponds and to determine rates of growth and survival of juvenile stocks transplanted to natural waters.

The genetics program conducted by the Bureau during fiscal years 1963 and 1964 will be accelerated so that an early determination can be made as to whether desirable characteristics can be developed in shellfish through selective breeding. Selective breeding in the field of agriculture has been one of the primary reasons for the substantial increase in agricultural production in the United States.

Knowledge and methods are presently available which can aid the shellfish industry to improve their operations. A shellfish advisory and consulting service on both the Atlantic and Pacific coasts is needed to bring the accumulated results of research to the knowledge of oystermen and to assist them in understanding the benefits that can be derived from scientific management.

*Plan of work.*—These programs will lead to the development of races of shellfish that (*a*) will be able to exist and propagate under conditions that are adverse to existing stocks, (*b*) will be resistant to diseases that cause heavy mortalities in both hatchery and field conditions, and (*c*) will have characteristics of growth and form that are superior to those of the original parent stock.

This increase will be used to demonstrate the feasibility of operating shellfish hatcheries through artificial propagation of clams and oysters and provide valuable information to shellfish producers. The Shellfish Advisory Service will work closely with the shellfish industry to develop methods for applying research results. Demonstrations of techniques will be conducted, practical experiments to make methods economically feasible will be undertaken, meetings and discussions with industry groups will be held. The increase will also provide for the documentation of accumulated knowledge and preliminary reports resulting from studies that have been made on oyster and clam cultures.

*(d) Designing fish protective devices*

The estimate for 1965 is $41,000, an increase of $1,600 over 1964. The increase is for increased pay costs.

*Plan of work.*—Design and inspection services will be continued for projects already constructed or under construction in the Pacific Northwest, California, and Alaska. Services will be required for Little Goose, Lower Monumental,

Lower Granite, Hells Canyon, Wells, John Day, Bruces Eddy, Green Peter, and Foster projects in the Columbia Basin as well as Iron Gate, Don Pedro, Feather River, Yuba River, and American River projects in California. Further services will be provided for any Federal Power Commission hearings which may be held involving fish facilities at new or existing projects. It is anticipated that a workload of approximately 52 projects will be involved in the design and/or inspection category during fiscal year 1965.

(e) *Employees compensation fund payments*

The estimate for 1965 is $14,400, an increase of $7,900 over 1964, to provide for payment to the employees compensation fund, Bureau of Employees Compensation, as required under section 209, Public Law 86-767. In addition to funds shown under this activity, additional funds are available under the Saltonstall-Kennedy program, as shown in the following table:

[In thousands of dollars]

| Subactivities | Annual definite appropriation | | Saltonstall-Kennedy funds | | Total program | |
|---|---|---|---|---|---|---|
| | 1964 | 1965 | 1964 | 1965 | 1964 | 1965 |
| (a) Coastal and offshore research | 8,742.1 | 10,925.1 | 2,068.9 | 2,068.9 | 10,811.0 | 12,994.0 |
| (b) Inland fisheries | 277.5 | 323.0 | 162.5 | 162.5 | 440.0 | 485.5 |
| (c) Shellfish | 643.6 | 666.0 | 279.6 | 279.6 | 923.2 | 945.6 |
| (d) Designing fish protective devices | 39.4 | 41.0 | | | 39.4 | 41.0 |
| (e) Employees' compensation fund payments | 6.5 | 14.4 | | | 6.5 | 14.4 |
| Total | 9,709.1 | 11,969.5 | 2,511.0 | 2,511.0 | 12,220.1 | 14,480.5 |

*4. Research on fish migration over dams*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Research on fish migration over dams | $1,480,385 | $1,496,700 | $1,407,000 | −$89,700 | +$10,300 | −$100,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*Research on fish migration over dams*

The estimate for 1965 is $1,407,000, a decrease of $89,700 compared to 1964. The decrease results from a program decrease of $100,000, offset in part by an increase of $10,300 for pay costs.

*Plan of work.*—The level of effort on studies involving racial migration rates and time of migration and the transportation of adult and juvenile salmonoids will be reduced. Although these studies are essential to the overall program some projects are being deferred to a subsequent fiscal year. Additional emphasis will be given to refining known methods of collecting young salmon in streams at the head of reservoirs and to developing new techniques for this purpose. Vertical and horizontal distribution of salmon in streams will be determined to provide a basis for the most efficient locations of collection devices. Research in large reservoirs will be augmented to include studies of the behavior of sockeye and silver salmon. Work in small reservoirs and on fish disease will continue under contracts to State fishery agencies. Additional effort will be placed on fish performance and physiology under various stresses, on movement of adult salmon in vicinity of dams, on fingerling passage through turbines and development of means to reduce losses, and on prediction of future environment.

*5. Fishing vessel mortgage insurance*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Fishing vessel mortgage insurance | $43,500 | $41,800 | $42,600 | +$800 | +$800 | ---------- |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*Fishing vessel mortgage insurance*

The estimate of $42,600 is an increase of $800 over 1964. The increase is for pay costs.

*Plan of work.*—This program provides for the insurance of mortgages given to aid in the construction, reconstruction, or reconditioning of fishing vessels. The funds loaned are provided by banks or other private lending institutions and their loans on mortgages are insured by the Bureau. An insurance premium is paid by the borrower which goes into a revolving fund along with investigation and commitment fees paid by the borrower. This fund will be used to pay any claim which may occur provided the mortgage or loan goes into default. In this circumstance the collateral will be taken over by the Bureau and can be liquidated with the funds obtained being returned to the revolving fund. Work necessary to the administration of this program is performed by the Bureau with legal assistance furnished by the Office of the Solicitor, a unit of the Office of the Secretary.

*6. Columbia River fishery facilities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Columbia River fishery facilities | $2,086,546 | $2,089,900 | $2,260,000 | +$170,100 | +$10,100 | +$160,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*Columbia River fishery facilities*

**The estimate for 1965 is $2,260,000, an increase of $170,100 over 1964.** The increase includes $10,100 for increased pay costs for Bureau personnel; $60,000 for increased pay costs for personnel employed in operating program hatcheries under contract; and $100,000 to continue the program for appraisal of project results at an effective level. The increased proposed for fiscal year 1965 will not require any increase in overall Bureau employment over that authorized for fiscal year 1964.

*Need for increase.*—**An increase of $160,000 is needed to provide for generally** rising uncontrollable costs involved in the effective conduct of this program. These increased costs are associated with the following:

(*a*) Rising salaries in State and Federal organizations cooperating in the conduct of the program. The operation and maintenance of the 21 program hatcheries, all operated under contract or agreement with State fish and game **agencies and the Bureau of Sport Fisheries and Wildlife, requires an increase of $60,000 which will be needed to meet salary increases** (6-percent average) projected for State and ungraded Federal employees at hatcheries. Salaries represent about 56 percent of the cost of hatchery operations.

(*b*) The conduct of a sound, statistically planned program for assessing **the effectiveness of the multimillion-dollar hatchery program in the Columbia River Basin. This program was initiated on the basis of an agreement made** with the Bureau of the Budget in 1960. Approximately 15 million young salmon have been marked and released, and an additional 10 million will be marked and released by fiscal year 1965. **Recovery of marked adult fish and the successful conclusion of the hatchery evaluation study cannot be achieved unless**

sufficient funds are available to allow for the planned extensive marking and recovery efforts. Sampling of commercial and sport fisheries in the ocean and Columbia River must be conducted in order to obtain valid data. Fiscal year 1965 will be the initial year of a full-scale effort for the recovery of adults at various ports from northern California to Alaska. An increase of $100,000 is necessary for the conduct of this work, which will be contracted to State agencies for performance. Recovery of adult marked salmon along the coast will require $80,000 of the $100,000 needed, and $20,000 will be required for tabulation and analysis of recovery data.

*Plan of work.*—A minimum maintenance program will be conducted for facilities in operation prior to 1963 and for facilities placed in operation during fiscal years 1964 and 1965. The operation and maintenance of facilities constructed under the Columbia River fishery development program will be continued in cooperation with the State fish and game agencies of Idaho, Oregon, and Washington. Principal items of work are the following: (a) operation and maintenance of hatcheries; (b) operation and maintenance of screens; (c) maintenance of fishways and stream clearance; (d) appraisal of project results; and (e) administration and inspection. Approximately 64 percent of the funds available for this program are utilized by State agencies conducting appraisal, operating 15 fish hatcheries, 59 fishways, and approximately 650 screens. Another 27 percent is utilized by the Bureau of Sport Fisheries and Wildlife operating six hatcheries and three major fishways. Special emphasis will be placed on the hatchery evaluation program to insure steady progress and proper emphasis on artificial propagation methods. That program will have to be conducted at approximately the same level for the next few years in order to obtain the data necessary for complete and valid evaluation. Full-scale sampling of fishing ports from northern California to Alaska will be conducted in an effort to obtain, through a statistically planned program, a representative coverage of the catch of adult chinook salmon in sport and commercial fisheries.

The excellent production at the program hatcheries in recent years, which has resulted in improvement of some runs of fish, is attributable in part to longer periods of rearing and improvements in diet. All effort will be made to continue the longer term rearing and to operate the hatcheries at capacity.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $15,821,954 | $17,824,234 | $20,681,000 | +$2,856,766 |
| Unobligated balance lapsing | 32,161 | | | |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration (Public Law 87-141) | 29,285 | 8,666 | | −8,666 |
| Appropriation | 15,883,400 | 17,832,900 | 20,681,000 | +2,848,100 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 6,796,081 | 7,750,000 | 8,428,000 | +678,000 |
| 12 Personnel benefits | 481,195 | 570,000 | 632,000 | +62,000 |
| 21 Travel and transportation of persons | 528,550 | 528,000 | 643,000 | +115,000 |
| 22 Transportation of things | 100,732 | 93,000 | 140,000 | +47,000 |
| 23 Rent, communications, and utilities | 482,996 | 458,234 | 581,000 | +122,766 |
| 24 Printing and reproduction | 95,078 | 132,000 | 133,000 | +1,000 |
| 25 Other services | 5,178,064 | 6,143,000 | 7,776,000 | +1,633,000 |
| 26 Supplies and materials | 1,058,209 | 1,154,000 | 1,221,000 | +67,000 |
| 31 Equipment | 884,842 | 823,000 | 963,000 | +140,000 |
| 41 Grants, subsidies, and contributions | 244,783 | 195,000 | 195,000 | |
| Subtotal | 15,850,530 | 17,846,234 | 20,712,000 | +2,865,766 |
| Deduct quarters and subsistence charges | 28,576 | 22,000 | 31,000 | −9,000 |
| Total obligations | 15,821,954 | 17,824,234 | 20,681,000 | +2,856,766 |

PREPARED STATEMENT

Chairman HAYDEN. If you have a statement the committee will be glad to receive it at this time. You may proceed either by reading your statement, or by inserting it in the record and highlighting it.

Mr. McKERNAN. Mr. Chairman, it is a pleasure, again, to appear before this committee. I will submit my statement for the record and make a few general remarks.

(The statement referred to follows:)

STATEMENT BY DONALD L. McKERNAN, DIRECTOR, BUREAU OF COMMERCIAL FISHERIES

Mr. Chairman and members of the committee: It is a pleasure to meet with this committee to discuss the programs of the Bureau of Commercial Fisheries and to present for your consideration the estimates of the financial needs of the Bureau for fiscal year 1965. I believe that the Federal Government's efforts during the past year have been of significant benefit to the commercial fishing industry of our country and in the broad national interest as well. Our objectives as set forth by Congress are to increase both maximum sustained use of our fishery resources and well-being of the commercial fishing industry. These are challenging tasks, Mr. Chairman, but we face the new year with determination as well as with optimism that the fishing industry of the United States will be an ever-increasing important source of protein food for our people and new wealth for our expanding economy.

Our estimates for fiscal year 1965 total $26,445,000. Of this total, $20,681,000 is for management and investigations of resources; $300,000 is requested under the special foreign currency program; $4,788,000 is for construction; and $676,000 is for general administrative expenses. An additional $2,442,000, to be derived from the Pribilof Islands fund, is requested for administration of the Pribilof Islands. The Bureau's budget includes a decrease of $750,000 under the construction of fishing vessels appropriation due to termination in the fiscal year 1964 of the subsidy program authorized under the act of June 12, 1960.

Increases totaling $2,856,766 are included in the estimate for "Management and investigations of resources," the principal item being $250,066 for increased pay costs for positions authorized in the current year; $151,500 for exploratory fishing and gear research; $255,000 for technological research which includes $225,000 for botulism and pesticides studies; $2,102,300 for biological research which includes $704,800 for operation and maintenance of new vessels and laboratories, $902,500 for the Bureau's contribution to the national oceanographic programs, and $495,000 for implementation of the recommendations of the President's Science Advisory Committee report on pesticides; and $160,000 for the operation of facilities under the Columbia River fisheries development program. A decrease of $100,000 is proposed for programs involving research on fish migration over dams.

Of the total increase requested under this appropriation $754,200 is for operation and maintenance of new facilities.

The estimate of $300,000 for the "Special foreign currency program" is the same as the 1964 appropriation. It provides for the use of foreign currencies to prosecute biological and technological research programs of benefit to the United States. The availability of these funds on a no-year basis will serve to increase their usefulness to the Bureau.

The $4,788,000 "Construction" estimate includes $4,200,000 for facilities required for our oceanographic programs, and $588,000 for construction and related purposes necessary to carry out the objectives of the Columbia River fisheries program. These include $1 million for construction of a Shellfish Research Center at Milford, Conn.; $1,500,000 for the construction of a Biological Research Laboratory for the tropical Atlantic area; $350,000 for scientific equipment for the North Pacific fishery research vessel constructed with funds appropriated in fiscal year 1964; and $1,350,000 of the total of $2 million required for the construction of a replacement of the exploratory fishing vessel *Oregon* for use in the Gulf of Mexico, Caribbean, and tropical Atlantic areas. The balance of $650,000 will be budgeted in fiscal year 1966. Funds for design of the *Oregon* replacement were appropriated for the fiscal year 1964.

The estimate of $676,000 for "General administrative expenses" represents an increase of $23,000 over 1964 to provide for increased pay costs for fiscal year 1964 positions.

I shall be pleased to discuss the estimates for specific items in the budget in greater detail as they come up for discussion in the course of the hearing.

The United States, for generations a leader among the fishing nations of the world, has during recent years slipped from second place to fifth in the harvest

of the resources of the sea. Not only do Japan, Russia, and Red China now catch more fish than the United States, but so does Peru, a relative newcomer to the world fisheries scene.

Fishing has been an important activity in this country for nearly three and a half centuries. From the time in the early 1600's when the first colonists fled England for America in the tiny, sail-powered *Mayflower* to the present day, fishing—first for food and later for both food and industrial products—has been a traditional American occupation, and the industry based upon this way of life has over the years made significant contributions to the Nation's welfare.

But times are changing, and while the commercial fishing industry in the United States is still a billion-dollar-a-year business, it faces serious problems on many fronts. Markets are being lost to imports, some ocean resources historically fished only by Americans are being exploited by other nations, and the industry, with a few exceptions, is failing to keep pace technologically with its competitors. Fishing as an industry is made up of many very small units which are scattered along the thousands of miles of coastline from the Arctic Circle on the Pacific coast to the Canadian border on the Atlantic, and along the entire length of the Mississippi River and shores of the Great Lakes.

The United States cannot afford a continuing decline in its commercial fishing industry. More than half a million people depend on this industry for their livelihood. It supplies over a million tons of food each year for our population, in a variety of forms, flavors, and textures that cannot be matched by any other protein commodity. The industry contributes substantially to the Nation's transportation system. It helps to keep the shipyards busy, is important to container and packaging manufacturers, and provides this country with a reserve of trained mariners in the event of a national emergency. Beyond this, the oceans of the world are a vast storehouse of renewable food and industrial resources that can contribute substantially to the diets and economies not only of our own people but also to those of the rest of the world. With our own population expected to increase by nearly 75 million in the next 20 years, the time may soon be at hand when the United States will have to look to the sea for more of its food supply.

The Bureau has been contributing to a solution to these problems. During the past year, the Department of the Interior published "Trident," a 10-year program of fishery and oceanographic research, development, and industry services. This document comprises two major parts (1) "The Long Haul," the Bureau's long-range program and (2) "Action Now," the Bureau's program for immediate remedial action. After publication, we established a task force to review our current programs and services, with a view of reorienting them to bear directly on the 13 problem areas listed in "Trident's 'Action Now'." The task force is also reviewing the need for additional legislation, where such an approach appears to be the most suitable means of resolving a problem.

To remain in competition for the world's fishery resources the U.S. commercial fishing industry must be revitalized and made more productive and profitable. It must be quick to utilize technological advances and it must use available knowledge regarding maximum sustainable yield of the resources fished, both now and in the future. Exploratory work must be done to first delineate, then find economic ways to fully utilize presently underutilized or nonutilized fisheries available to our fishermen.

A primary task of the Bureau is to develop knowledge about fishery resources and their environment. Such knowledge will provide background information for industry to use in determining where to fish, what to fish, and how much to fish. Included with this knowledge will be facts relating to the size and nature of resources, methods for their economic harvesting, development of new processes and products, and assessment of domestic and world market potential for new fish and fishery products.

Essential to accomplishment of this task are programs conducted by the Bureau under the national oceanography program. "Oceanography" in the broad sense is the study of all phenomena that take place on and beneath the surface of the sea, whether they relate to circulation of waters, their chemical composition, contours and structure of the bottom, or the habits and interrelationships of plants and animals that inhabit all levels of the sea. The Committee on Oceanography of the National Academy of Sciences has recommended that the Bureau of Commercial Fisheries begin new work or expanded present investigations in such diverse fields of oceanography as fish survival, disease, and behavior; genetics; distribution, and classification of marine life; possibilities of

increasing the productivity of the sea by adding or redistributing nutrients, transplanting organisms from one part of the sea to another, or growing animals under controlled conditions in ponds; utilization of unmanned buoys and other new devices, such as submersible chambers like the mesoscaphe, for making oceanographic observations; determination of physical, chemical, and biological interrelationships in estuaries; and cooperation with Navy, Coast and Geodetic Survey, National Science Foundation, and other Government agencies in the operation of a National Oceanographic Data Center. The Bureau is playing a leading part in the coordination of all oceanographic effort within the Government and has benefited in a major way from this effort.

Because the work of the Bureau is of very direct interest to the fishing industry, much of our research program has been oriented toward solution of questions of direct practical concern. Consequently, basic research is only now beginning to receive the attention it deserves, yet research is necessary to the understanding of the causes and effect relationship of practical problems of the fishing industry.

Research on aquatic resources is difficult and costly. Such research must be done in a medium which is not man's natural environment, gathering information by probing blindly from above, working from extremely expensive yet unstable and crowded ship platforms, subject to all the vagaries and dangers inherent in oceanic weather, and able to identify the geographic location of our observations quite inaccurately by scientific standards. It is truly remarkable that with limited resources and relatively primitive methods we have been able to gather so much useful information about a domain so vast and so mysterious as the sea. The problems of devising methods of capture, tracing migrations, studying geographic distribution, and counting and measuring rates of birth, growth, and mortality of fishes are tremendous.

Several important advances in this field have been made in recent years. Bureau scientists have discovered new areas of high biological productivity in the central Pacific, heretofore unsuspected, and have demonstrated that the ocean is by no means the desert it was popularly supposed to be. A Bureau scientist discovered also a major new ocean current in the equatorial Pacific, flowing eastward well beneath the surface and carrying more than a thousand times the volume of water discharged by the Mississippi River. The Bureau has identified and described the complex oceanographic processes that govern the movement of skipjack tuna into the area exploited by the Hawaiian live-bait tuna fishery.

In the Atlantic and Gulf of Mexico, Bureau scientists are faced with even more difficult questions, for the important fisheries and concentrations of marine life are found in the coastal areas where oceanic circulation is far more complex and conditions more variable. Scientists are just beginning to realize the great importance of the estuarine environment, which harbors large permanent stocks of oysters, crabs, and many kinds of fishes, and which is an important nursery ground for young shrimp, menhaden, and other rich marine resources. This environment is much more complex than the open ocean, hence much more difficult to understand, yet limited efforts in research have been fruitful. We have learned much of the important effects that temperature and salinity changes exert upon the movements and abundance of clams, oysters, shrimp, crabs, menhaden, and other life. Bureau scientists have succeeded in the difficult task of learning how to grow and maintain in the laboratory continuing cultures of the microscopic organism that causes periodic disastrous outbreaks of red tide in the Gulf of Mexico. The Bureau has been successful in breeding artificially, and maintaining in the laboratory, successive generations of oysters and clams. This achievement offers exciting possibilities for breeding shellfish for fast growth, disease resistance, high survival rate, fatness, flavor, and a host of other desirable qualities. Progress also has been made in the development of chemical controls for shellfish predators.

In both oceans the Bureau is exploring the relation between long-term meteorological conditions, oceanography, and the distribution, migrations, and abundance of marine life. These investigations are beginning to clarify the ways in which changes in atmospheric pressure influence ocean current patterns, which in turn alter routes of fish migration and affect survival and growth rates. In both oceans, also, basic studies of distribution, growth, and survival of fish eggs and larvae in relation to oceanographic conditions have produced results of wide interest. Our new research vessel for the North Atlantic, the *Albatross IV*, will allow the Bureau once again to pursue these important oceanic investi-

gations in a region of great international importance, where 13 nations, including the U.S.S.R., are operating and expanding their fishing interests.

The great salmon runs of the Pacific Northwest and Alaska are among the Nation's most valuable fishery resources. Resumption of Japanese high seas salmon fishing after World War II offered a serious threat to our management program. In 1953 the International Convention for the High Seas Fisheries of the North Pacific Ocean, with Canada, Japan, and the United States as participants, recognized this problem. At that time the distribution of salmon on the high seas was not known, and Japan's agreement to abstain from fishing salmon of North American origin was effected by creating a provisional line at longitude 175° W., east of which Japan agreed not to fish. The task of the scientists was to determine whether salmon of Asian and North American origin intermingle on the high seas; and, if so, when and where intermingling occurs. U.S. scientists developed ingenious new techniques to identify continental origin of salmon caught on the high seas, and demonstrated that the valuable red salmon resources of Alaska dominate high seas catches in a very large area of the Bering Sea and the North Pacific Ocean, extending considerably westward of the provisional line. This proved that Japanese fishermen, even under the rather severe restrictions imposed by the treaty, can take large numbers of North American salmon. This was a scientific achievement of the greatest importance to the U.S. fishing industry.

On the Atlantic coast the Bureau has investigated the decline of the shad fishery and has made recommendations for rehabilitation of runs in certain rivers. The Bureau has discovered valuable new shrimp grounds off the Alaska Peninsula and in international waters off South America which are now being fished commercially by U.S. vessels. A great deal has been learned about the behavior of salmon in fishways, and this has led to simplification of the structure of fishways and to the design of fishways that are effective in passing salmon over lower dams.

The Bureau has developed a method of guiding and capturing fishes with curtains of air bubbles. This air-bubble curtain is now in commercial use. The feasibility of using trawls for catching fish in the Great Lakes has been demonstrated, and this development promises to relieve current economic distress in certain fisheries of that region.

Programs for eradicating the destructive sea lamprey from the Great Lakes are showing extremely promising results, and the rehabilitation of the lake trout resource, decimated by the depredations of the lamprey, are now underway.

A voluntary inspection and certification service has been set up for fishery products and standards of quality have been developed, which will greatly improve marketing of fishery products and which will assure the housewife of consistently good quality at the marketplace. Well over 200 million pounds of fishery products were inspected and certified during the past year.

It has been known for some time that fish oils have unusual characteristics that set them apart from other animal oils, but the limited levels of past research prevented development of a sufficient understanding of these characteristics to develop their uses. Recently, a concentrated study of the fatty acid components of fish oils has led to a research breakthrough. The unsaturation of the fatty acids, which has limited the use of fish oil in its natural form, now shows promise of being a valuable characteristic. Research with Bureau funds has shown that these fatty acids are unusually effective in reducing the level of cholesterol in the serum of animal blood. Cholesterol is believed by some researchers to be involved in the occurrence of atherosclerosis, a type of hardening of the arteries. This exciting discovery has attracted wide attention, and equipment is already set up to produce adequate amounts of highly purified fish oil fractions for use in medical research. A successful conclusion to this limited but important phase of research could be of immeasurable value to people throughout the world. Recent information points also to important applications in dietary control of the endocrine glands, especially the thyroid, which ultimately regulate the mechanisms of the human body.

Other programs, important to the health of the American public as well as to the future of our country's fishing industry involve botulism and its causes and the effect of improper use of pesticides. Research on *Clostridium botulinum* (type E) will be conducted, in cooperation with other Federal agencies, to establish methods of eliminating this public health hazard from seafood products. Recent cases of poisoning resulting from botulism on smoked fish caused seven deaths and severe economic injury to the fishing industry.

Studies are being conducted to determine the effects of pesticides on fish and other aquatic life in bays, estuaries, and other natural environment. Technological research will be conducted to establish when, and under what conditions, pesticides are ingested by fish and shellfish. These studies will insure that a minimum of pesticides reach the consuming public and the resources do not suffer from the improper application of the chemicals.

Bureau scientists will intensify studies on the composition of fishery products to provide data for use by dietitians, physicians, and homemakers in developing properly balanced diets. These studies will concentrate on such essential food components as amino acids, minerals, fats, and vitamins.

Through research, new methods for improving the handling of raw materials and developing better preservation techniques, including freeze drying and irradiation pasteurization, will be sought. The development of standards of grade for the principal fishery products will be expanded, and the Bureau's voluntary inspection service, which utilizes these standards, will be continued to assure the housewife of certified quality through the use of Department of the Interior quality grade labels. Bureau service programs, such as our daily market news dissemination, vessel repair loans, and consumer education will continue to receive appropriate emphasis and guidance.

The Bureau believes the goals embodied in our budget estimate are consistent with, and will contribute to, the Department of the Interior's balanced program of conservation and wise use of natural resources. It further believes that our plans will be of benefit to the ever-growing marine sport fishery and will complement the conservation programs of other Government agencies.

### Economic Condition of Fisheries

Mr. McKernan. Commercial fisheries in 1963 suffered some loss in catch, dropping approximately 600 million pounds, but the value of the commercial fisheries during 1963 was at an alltime high, with a value of close to $400 million at the fisherman level.

This means, Mr. Chairman, that its effect on the economy of our country at the retail level was then pretty close to $2 billion during 1963 or a rather sizable economic benefit to our country.

### Budget Request, 1965

Now, Mr. Chairman, in 1965 the Bureau for the direct annual budget is asking for a total of about $26.4 million. In addition, the Bureau has $6.8 million in permanent funds. Our overall increase is about 9 percent over the preceding fiscal year. This increase, Mr. Chairman, largely reflects increases in pay costs and increases for operation and maintenance of new facilities which are being completed during 1965 and which require such things as personnel for new research ships, and maintenance people at new laboratories

### Research on Botulism and Pesticides

Our budget for 1965, in my view, Mr. Chairman, is a very modest one. It reflects a sincere attempt to hold down the expenditures. There are really only two programs where the Bureau is requesting sizable increases for new efforts. One of these is in the Midwest where we have had a serious problem with botulism in certain species of fish.

The Bureau is cooperating with the Public Health Service, the Food and Drug Administration, and the several States adjacent to the Great Lakes. The Bureau believes it to be absolutely necessary to carry out some expanded research in this area, because the Great Lakes fishing industry has been hurt to a major degree by this serious problem and the health of the public is involved.

The second program, Mr. Chairman, is an increase in research on pesticides. We are attempting to find ways of accommodating the tremendous need for control of weeds and insects affecting our agricul-

ture and yet not affect the aquatic resources which abound in and about our inland and coastal waters.

NEW ITEMS IN BUDGET

These two items are the only substantial new items in our budget. These are the only programs for which we are really making new starts or substantial new starts during 1965.

Senator YOUNG. Mr. Chairman, could I ask a question at this point?

Chairman HAYDEN. Yes.

Senator YOUNG. How much do you have in your budget for this purpose?

Mr. MCKERNAN. About $530,000 for pesticide research, Senator.

Senator YOUNG. This would be in the order of research?

MONITORING THE ESTUARY AREAS

Mr. MCKERNAN. This would be for research and for some monitoring of the estuary areas. You are probably aware, Senator Young, that the discharge from the land in many of our coastal regions comes into the estuaries and backwaters that are the nursery grounds for some of our major commercial fisheries, such as menhaden and shrimp and oysters in the gulf.

Now, we have found in the laboratory that many of these chemicals in very, very small concentrations, down to a few parts per billion, do adversely affect the larval and postlarval stages of some of these species.

What we are trying to do is to pinpoint the problems and study in cooperation with the agricultural scientists how the problem can be corrected.

COOPERATION WITH OTHER FEDERAL AGENCIES

Senator YOUNG. What laboratories do you have to do this work, and do you work with the Department of Agriculture?

Mr. MCKERNAN. We have biological and technological research laboratories in which we can do this work. Yes; we do work with the Department of Agriculture. As a matter of fact, the Federal establishments have put together a team of people here in Washington. These people meet regularly and, in fact, now are reviewing all new applications for the use of new chemical pesticides.

Where pesticides are now being used, programs are being designed and assigned to different laboratories and different agencies which have the primary interest or expertise to carry out the studies. The results are brought back into this particular committee where they are evaluated and judged.

In my view, in the past year, Senator Young, there has been a tremendous improvement in the cooperation and coordination of the entire Federal effort and especially that between Agriculture, Health, Education, and Welfare, and Interior.

Senator YOUNG. I am glad you are all working in this same direction.

Mr. MCKERNAN. We are all working in this same direction, and, I think, for the same end.

Senator YOUNG. Thank you.

Mr. MCKERNAN. Mr. Chairman, that completes my general remarks. We would be very pleased to answer any questions.

### PROGRAM ON BOTULISM RESEARCH

Chairman HAYDEN. I observe from your justification notes that you request an increase of $190,000 to initiate a program of research on botulism. Apparently this program will be carried out in conjunction with other Federal agencies. Do you have one part of a research program and they have another, or do you and other Federal agencies work on the same question?

Mr. MCKERNAN. What we have done here, Mr. Chairman, is to set up an interagency committee to coordinate work on the problem of botulism and on other organisms which might contaminate fishery products. We have been working with the Food and Drug Administration and with the Public Health Service in drafting a program. Each agency has the part of the program where its own particular specialists have the greatest competence.

### COOPERATION WITH OTHER FEDERAL AGENCIES

We are making certain that there is no overlap and that there is coordination at every step and every stage of the way.

Chairman HAYDEN. What other Federal agencies are involved?

Mr. MCKERNAN. These are primarily the Food and Drug Administration and the Public Health Service of the Department of Health, Education, and Welfare, the Bureau of Sport Fisheries and Wildlife and our own Bureau. In addition the States involved are Wisconsin, Michigan, and Minnesota, which especially are cooperating with us. Other States have been attending our meetings and have been supplementing our total efforts.

Chairman HAYDEN. Each one of these agencies provides its own money? There is no transfer of funds?

Mr. MCKERNAN. That is right, there is no transfer of Federal funds.

### RESEARCH IN PRIOR YEARS

Chairman HAYDEN. How much work have you done on this particular subject in prior years?

Mr. MCKERNAN. We have done too little, Mr. Chairman, I am sorry to say. We had not thought that this particular problem affected fishery products until very recently. In fact, we are puzzled by the increase in incidence of this organism in fisheries products.

It has been an absolute rarity until the past year. For these reasons, we have not thought it had a particularly high priority. What we are afraid of, of course, is that this may be a prelude to other infestations. We want to make certain that the public welfare is preserved, as well as the welfare of the fishing industry dependent upon these resources and upon these products for their economic benefit.

### TECHNICAL ASSISTANCE ON RESERVOIR AREAS IN SOUTH DAKOTA

Chairman HAYDEN. Last year Congress added $92,000 to your budget request for providing technical assistance on commercial fisheries in

the Big Bend and other reservoir areas in South Dakota. What progress have you been able to make with these funds?

Mr. McKernan. Mr. Chairman, I am pleased to report that we have made quite good progress. We have established a team of scientists at a reservoir and we have brought in special gear and equipment. We have been sampling and designing experiments and, in fact, carrying out research to find out how large the fish population is and to what extent it is dispersed throughout the reservoir.

FISH POPULATION RESEARCH

We have some quite good results, too, Mr. Chairman. We have caught over 100,000 pounds of fish at the present time of many species. We have found that there are large quantities of fish in these reservoirs which are not being used by recreational fishermen. It would be advantageous from the standpoint of developing recreation if such fish as the buffalo, crappie, and other fish were thinned out.

Senator Mundt. Such as the carp?

Mr. McKernan. Right. You will be interested to know that in our catches so far we have caught 45 percent buffalo fish, about 19 percent crappie, and about 10 percent carp. These are the three most abundant species that have been found in the reservoir.

COOPERATION WITH STATE AND COMMERCIAL INTERESTS

We are working with the State agencies and we have commercial fishermen operating there. In fact, we have been fishing under the ice to follow the population movements throughout the year. We have finclipped close to 50,000 fish so far and we have been on the lake for less than 6 months.

In my opinion, Mr. Chairman, we have made rather outstanding progress thus far and we are very optimistic that this program will show us the way to utilize the resources, the living resources, of these great inland bodies of water, not only in South Dakota but in many other Midwestern and Western States.

Chairman Hayden. Is there a market?

Mr. McKernan. Yes; we do think there will be a market.

Chairman Hayden. Do you have a question?

Utilization of Indian Reservation Labor

Senator Mundt. Yes. Thank you for that very interesting report. I have been visiting that area and I want to commend you on the caliber of the people you have sent out there. You have some mighty high-type people working there and they have created a most favorable reaction, I can assure you, and I would like to thank you personally for following one suggestion that I made and that is utilizing, when available, Indian labor from the reservation.

I think that has made a great hit with the people, because our big problem with the Indian is education and employment. You have recognized that, as far as possible, in employing these people and the Indians and non-Indians like it.

Mr. McKernan. Senator Mundt, I am going to pass that on to our staff there, because they will like it.

Senator Mundt. Thank you. I mean it. I wonder what funds you have for that work in this budget?

BUDGET REQUEST

Mr. McKernan. We have $92,000 at the present time, Senator Mundt.

Senator Mundt. That you are asking for?

Mr. McKernan. Yes.

Senator Mundt. Is that the same amount as last year?

Mr. McKernan. That is right.

Senator Mundt. Is that the amount you feel is required to carry it forward at the optimum rate, or would more money create better results?

Mr. McKernan. More money will create better results. We have attempted, as I said, before you mentioned this item, to submit what we consider to be an extremely conservative budget this year and in the Oahe Reservoir area, we can accomplish good research with the present funds. We can make much faster progress, however, if we had more money.

PURCHASE OF VESSEL

For example, we simply cannot afford with present funds a suitable vessel to get from one place on the lake to another.

Senator Mundt. I was leading up to that as to whether the $92,000 provides you with a way to get out on the water when it is not frozen.

Mr. McKernan. No, it won't.

Senator Mundt. How much more money will you need for that?

Mr. McKernan. I had not anticipated this question, but I would judge in the neighborhood of $50,000 would provide us with an adequate vessel. I would be glad to supply that for the record, that is, a more precise figure.

Senator Mundt. May I suggest that you do supply that to the clerk for the record and any other item you think essential for moving forward at the optimum rate?

Mr. McKernan. Senator Mundt, I would like to mention, and I think I would be negligent if I did not, that we are working not only with the State of South Dakota but also with our sister bureau, the Bureau of Sport Fisheries and Wildlife. I believe that bringing together the two Bureau disciplines in this area is going to provide good results.

(The statement referred to follows:)

RESEARCH IN SOUTH DAKOTA RESERVOIRS

An increase of $132,000 for a vessel and additional research with five additional permanent positions would be required to provide for progress at the optimum rate on the South Dakota reservoir research work.

RESEARCH VESSEL

A more precise estimate of the cost of an adequate research vessel of the type needed, would be $45,000. This would provide for the highly versatile vessel which is required since we are uncertain as to which method or methods of fishing are going to prove economically feasible. Of particular importance is an adequate size fish hold since we intend to conduct holding experiments to determine the best way to preserve fish under a variety of conditions. The vessel would be capable of independent operation throughout the 250-mile length of Oahe Reservoir and would necessarily have living accommodations and a speed of at least 15 knots. It would be a vessel of the latest commercial design modified as a reservoir fisheries research vessel. Although it is expected that future reservoir commercial fishing vessels will be relatively compact, high performance

craft, this research vessel must be equipped with sufficient deck gear, equipment, and instruments to permit the use of a wide range of fishing and biological sampling gear and associated instruments. The vessel could be obtained and put into use within 3 months after receipt of funds. This would be a nonrecurring item.

PROGRAM INCREASES

The amount of $87,000 is required for operation, maintenance, and carrying out experimental fishing and biological sampling programs involving the new vessel, and a program of fisheries development and research in waters immediately below dams.

Of this total, $42,000 is needed for the vessel program including salaries and related costs for one crewmember, and two scientists. The program involving vessel utilization will be initiated in Oahe Reservoir. The program will be concerned with determining the seasonal abundance, distribution, and availability of major species of fish to commercial gear in all areas and depths throughout the entire Oahe Reservoir. A variety of experimental and conventional types of gears including bottom and midwater trawls, shore and open-water seines, draglines, trotlines, gill nets, trap nets, and other yet to be determined types will be experimentally fished in order to determine the most efficient and commercially feasible fishing methods. Fish taken by experimental fishing will be studied for species, age, size, and year class strength. For major species of commercial value, studies will be conducted on growth rates, stages of maturity and food habits. Fish wil be tagged to determine distribution, movement, and rate of capture.

Methods, techniques, and knowledge obtained from work in Oahe Reservoir will be extended to other impoundments in this area.

The remaining $45,000 is needed to extend fishery development and research activities immediately below dams. Great concentrations of fishes are common below the dams forming these reservoirs at certain times of the year. The capture of large quantities of these fish would be possible at relatively low cost if methods of fishing suited to such areas could be worked out. Studies of the methods to catch these fish on a large scale never have been attempted seriously. Full consideration will be given to protection of recreational fishing and game fish populations in developing methodology. Our greatest potential for immediate fishery development is in the waters just below the dams at Oahe, Randall, Big Bend, and Lewis and Clark Reservoirs. Experimentation to develop procedures and gear would be done at the dam on one reservoir but, once the development was accomplished, fishing rights could be contracted by the State to commercial operators or Indian groups. This program would require the services of two scientists.

SPAWNING AND RAISING OF SPORT FISH

Senator MUNDT. When you take a carp or sucker out of the reservoir, you increase the potential for the spawning and raising of sport fish. The experience of so many of our fishing areas has been that when the carp gets in in great numbers they devastate a lake.

They are like a water hog. They destroy vegetation and the nesting areas. And I think what has happened in little lakes can take place in large lakes.

You remember, Mr. Chairman, we have talked about putting a screen over the lake and preventing this terrible devastation. It is rough to do. You almost have to harvest rough fish to get the sport fish.

HARVESTING ROUGH FISH

Mr. MCKERNAN. We are certain we can devise means for harvesting rough fish economically.

Senator MUNDT. Unquestionably, the situation is different than it was for the 6½ years I served on a bipartisan game and fish commission in South Dakota. We did not have much money there, because her majesty, the pheasant, had not been produced. Now we are doing better financially.

For years, and years, and years, we controlled the fish in our lakes. At that time, the commercial fisherman paid us for seining rough fish. They do provide table food, do they not? There is a human market as well as an almost unlimited animal market?

Mr. McKERNAN. You are correct, Senator Mundt. I think we will agree that we do have to get the people of South Dakota to like fish a little better.

Senator MUNDT. They do like the sport fish. Thank you, Mr. Chairman.

Chairman HAYDEN. There will be included in the record a letter to the subcommittee from the entire congressional delegation from Oklahoma urging an appropriation of $196,000 to embark on a 3-year research program to determine the commercial possibilities of developing supplies, markets, methods, and related information for profitably utilizing rough fish in Oklahoma reservoirs.

(The letter and attachment referred to follows:)

U.S. SENATE,
COMMITTEE ON APPROPRIATIONS,
*February 25, 1964.*

Hon. CARL HAYDEN,
*Chairman, Interior Appropriations Subcommittee, Senate Appropriations Committee, U.S. Senate, Washington, D.C.*

DEAR CARL: I am authorized by the entire Oklahoma delegation to submit to you a proposal for a commercial fisheries research project.

The authority for such a project exists and may be activated by an appropriation as herein suggested. This proposal has been carefully revised and approved by the Oklahoma Department of Wildlife Conservation and the Bureau of Commercial Fisheries, Department of the Interior.

We believe that this project will provide the basis for a new and profitable industry in the 34-county area in Oklahoma designated as qualified for Area Redevelopment Administration grants and loans. Further, we believe the industry may well reach a potential of $50 million annually in the United States.

We would appreciate your interrogation of the appropriate government witnesses relative to this proposal. Although we believe the attached proposal contains complete justification for the proposal, we would be glad to testify if you wish additional information.

Your favorable consideration of this request will be greatly appreciated.

Sincerely,

MIKE MONRONEY.

For the Oklahoma delegation:

Senator MIKE MONRONEY.
Senator J. HOWARD EDMONDSON.
Congressman PAGE BELCHER.
Congressman ED EDMONDSON.
Congressman CARL ALBERT.
Congressman TOM STEED.
Congressman JOHN JARMAN.
Congressman VICTOR WICKERSHAM.

COMMERCIAL FISHERIES RESEARCH

A commercial fisheries research program at Federal reservoirs in Oklahoma to determine the commercial possibilities of developing supplies, markets, methods, and related information for a profitable industry, utilizing "rough" fish in the more than 450,000 acres of impounded waters in Oklahoma, is herein proposed.

We propose that an appropriation for this purpose be made to the Bureau of Commercial Fisheries as follows:

| | 1st year | 2d year | 3d year |
|---|---|---|---|
| Branch of: | | | |
| Biological Investigations | $86,000 | $86,000 | $86,000 |
| Exploratory Fishing | 47,900 | 47,900 | 47,900 |
| Economics | 6,000 | 6,000 | 6,000 |
| Marketing | 28,100 | 32,500 | 62,200 |
| Technology | 28,000 | 77,000 | 29,000 |
| Total | 196,000 | 249,400 | 231,100 |

We believe this proposal will provide an opportunity to add materially to gainful employment in the 34 counties designated as qualifying for Area Redevelopment Administration grants and loans. We believe that a new and profitable industry can evolve from this research, with $50 million a year potential for Oklahoma and other States.

The large number of reservoirs impounded or authorized in the United States, the apparent large populations of fish that appear to be available in these waters, and the growing need for fishery products throughout the world all point toward the need to develop commercial utilization of those resources. In cooperation with the State of Oklahoma in this case, and with other States ultimately, the Bureau of Commercial Fisheries is intensely concerned with the full development of possible commercial enterprises that this potential stock of fishes might support.

Sport fishing is popular on all the Oklahoma reservoirs and tailwaters and fishing intensity is relatively high. Commercial fishing has been conducted on a limited scale on only a few reservoirs, but catch rates have been high.

Oklahoma has a history of fishery research and management on reservoirs that has been directed almost entirely to sports fish and the sports fishery. The results of the many years of effort have not been entirely satisfactory. Sports catches have not improved. In fact, there has been a decline in some waters, and the high abundance of nonsports fish in the reservoirs has caused the public widespread alarm. Fishery administrators and biologists in Oklahoma agree that research must take on a new direction—that management must be more realistic. The new direction agreed upon by Oklahoma and the Bureau of Commercial Fisheries is one of studying the only biological feature of reservoirs that usually can be controlled or manipulated—the fishing and the rate of removal of the fish. It was further agreed that effective research on fish removal must be based upon the use of commercial gears.

The objectives of the biological investigations are to determine levels of abundance and availability of fish, the response of populations to high rates of removal on sports and commercial fisheries. The studies should lead ultimately to a system of efficient exploitation of biological (fish) productive capacity for the common good of all interests.

The research should be conducted in the reservoir in Oklahoma that holds the greatest promise for completing satisfactorily all phases of research.

All nonsports fish (carp, buffalo, suckers, bowfin, gar, shad, white bass, bullheads, flathead catfish, and blue catfish) captured will be removed from the reservoir by fishermen and sold, given to institutions, or used in experiments. Channel catfish and perhaps other game fish will be removed at carefully controlled rates as part of the research program, and the disposition or use of the fish taken shall be the responsibility of the State.

Research will be conducted continuously as findings dictate. Commercial and experimental fishing would be allowed in all areas of the reservoir except for local areas of high recreational use as agreed upon by the agencies concerned (Oklahoma Department of Wildlife Conservation, Bureau of Commercial Fisheries, and the Corps of Engineers, or other management agency).

The interrelationships of fish removal and changes in fish populations, catch, and the environment will be determined, and evaluation of the problems and benefits of various changes or controls will be made.

Costs of conducting a study of the sport fishing intensity and catch will be borne by the Oklahoma Department of Wildlife Conservation. In the event that other phases of biological research or expenses programed by the Bureau will be fi-

nanced and assumed by the Oklahoma Department of Wildlife Conservation, the obligated funds of the Bureau that are released will be used to conduct related studies on connecting waters in a manner that will increase the value of the findings of the project outlined here. The Oklahoma Department of Wildlife Conservation has requested special funds for cooperative investigations on reservoirs.

Economic investigations on reservoirs in Oklahoma will be concerned with the overall benefits obtained from commercial fisheries in the area. The studies will cover the following points:

1. Income and employment generating potential from the fishery.
2. Total potential economic development resulting from improved sport fishing and recreational activities.
3. The relationhsip between improved sport fishing and expanded income and employment will be analyzed.
4. An analysis of technological research will be made to determine the most economic method of processing and storage of commercially landed species.

Following is an outline for a marketing program to assist development of commercial fishing reservoirs:

1. Survey market utilities for fish produced in initial biological and gear research studies. This survey would explore commercial possibilities in human, animal, and industrial use markets for fish species discovered or known to be in the reservoir.
2. Based on the market survey, recommendations would be made to technology on the most promising (market and profitwise) products on which processing and new product development studies could be made.
3. A marketing program would be instituted to develop and expand market outlets for unprocessed fish species discovered in the survey.
4. Assistance will be given industry in implementing and conducting a market development program including market research to introduce new products developed by technology research on the market.
5. Test kitchen research on receipe and menu development and nutritional evaluation of reservoir fishery products will be conducted on the principal market species discovered and on new products as they are developed.

The proposed studies are concerned with the evaluation and development of industrial products from fishery byproducts and species not used for human consumption from fresh water impoundments.

Feed industries are constantly searching for abundant and inexpensive protein supplements as additions to various types of feed materials such as poultry and livestock feeds, and pet foods and mink rations. As the demand and production of the valuable catfish increases and artificial feeding of pond stocks develop, rough fish and byproducts of food fish could be processed to be used as catfish food, particularly as growth factor supplements.

Ideally, an industrial processing operation for impoundment fisheries should consist of a portable plant. Most individual impoundments are not capable of producing at sufficiently high rates to maintain a reduction-type operation for sustained periods. Also, the transportation of fish to a stationary plant may not prove economical.

In order to properly develop industrial products from reservoir fish stocks, we must first survey existing methods of reduction and associated equipment and develop suitable methods of processing.

In order to evaluate the capabilities of a projected reduction process to produce a stable, high-quality, high-protein meal, nutritional evaluation of the finished product should be conducted. Protein availability and quality should receive particular attention.

Although Oklahoma is rather far removed from the seacoast and generally considered an agricultural State, it has a great potential for commercial fishing. This can be substantiated by the fact that there are 14 large reservoirs with about 350,000 surface acres, 12 smaller reservoirs, and 9 others authorized for construction. Within a relatively short period of time, Oklahoma will have public works reservoirs that will total more than 545,000 surface acres, or an area about one-fifth the size of Lake Ontario. Private, municipal, industrial, and recreational lakes number 170 with 30,000 surface acres. There are in excess of 75,000 farm ponds and 1,671 retardation structures which have a surface area of more than 183,000 acres. So the total water surface of Oklahoma, not counting streams and smaller ponds, will be about 750,000 acres when presently authorized projects are constructed.

Sport fishing is popular on all the existing reservoirs and tailwaters but has been selective for certain desirable game fish. A limited amount of commercial fishing has produced high catches of less desirable species. The large populations of underutilized fish which appear to be available in these impounded waters, plus the increasing requirements for high-quality protein, especially from the industrial standpoint for such as pet foods and fish meal, would support the need to develop commercial utilization of this latent fishery resource.

If only the low figure of 250 pounds per acre is considered, the production from Oklahoma reservoirs would far exceed that of either the Mississippi River or the Great Lakes. Through proper management, the production of both game and commercial species could be increased and maintained at a high level.

The Federal Government in cooperation with the States is vitally concerned with the fullest development of any and all commercial enterprises that this potential stock of fishes might support. Through the use of Federal funds provided by this proposal, the Government could apply in orderly phasing its capabilities in biological research, exploratory fishing, economics, technology, and marketing in order to develop this resource to its top dollar value.

Approximately one-half of the total U.S. fish production of 5.2 billion pounds is now utilized as animal feed. In addition, about 2 billion pounds of fishery products are imported to meet domestic industrial requirements. Another 2.2 billion pounds of fish consumed as human food in the United States is imported. The explosive growth of world populations since World War II has turned the eyes of man toward the waters as a source of protein. The reservoirs in Oklahoma could help provide an answer to this problem.

The development of a commercial fishery in reservoirs presents problems of great magnitude because there is presently a lack of knowledge necessary to establish a basis for an economically sound commercial fishing industry. A program to provide solutions to these problems must include consideration of production, processing, and marketing of commercially available species, and at the same time provide for the conservation of those species considered valuable to the continuation of sport fishing and recreational aspects in reservoir utilization.

In summation the development of a prosperous commercial fishing industry in Oklahoma would provide the following benefits to the State:

1. Development of an entirely new industry at the basic production level.
2. Development of a fish processing and distribution industry involving products for both human food and industrial uses.
3. Attainment of knowledge with which to develop and maintain a ready reserve of protein for human food and industrial uses in the event of an emergency or other need to supplement the inshore and high seas fisheries. This would benefit the entire Nation as well as Oklahoma.
4. Creation of additional income and employment to allied industries such as those engaged in the production and distribution of boats, motors, petroleum products, nets, packaging materials, and refrigeration and transportation equipment.
5. Expansion of capital investment, employment, and sources of both personal and revenue income.
6. Enhancement of the recreational uses of reservoirs and connecting waters.

Chairman HAYDEN. Would you care to comment on this proposal, Mr. McKernan?

Mr. MCKERNAN. Yes, I would, Mr. Chairman. We were asked by the Oklahoma Fish & Game Council to help them develop such a program. This program would require $196,000 for the first year and 12 additional permanent personnel. It would provide for comprehensive studies toward development of a fishing industry utilizing rough fish in the more than 450,000 acres of impounded waters in Oklahoma. This program has the same basic objectives as our work in South Dakota. However, we find different conditions and problems in northern and southern reservoirs. Since our findings in the north will not apply to southern reservoirs, we consider research on southern reservoirs essential for development of the total reservoir fishery resource. It is quite possible that this program will bring about the development of a new industry. Furthermore, we anticipate that

sport fishing in southern reservoirs will be enhanced by orderly harvest of "rough" fish which complete with sport fish for food and space.

### Fish Protein Concentrate

Chairman Hayden. Research with regard to fish protein concentrate for human use in the United States and other countries has been a matter of interest for some years. What is the status of the experimental work on this subject?

Mr. McKernan. Mr. Chairman, here again, we have made what I consider to be rather outstanding progress during this past year. You will remember that the Congress was very generous in providing funds for this special project. With these funds we have done a number of things.

### Special Committee, Trained Staff, and Scientist Assisting

In the first place, we have asked the National Academy of Science to set up a special committee of scientists, comprised of food engineers, nutritionists, fishery scientists, and food chemists of national and international reputation. These people have been advising us on the general direction of our program.

In addition, we have accumulated a staff of highly trained and very highly specialized scientists at our technological research laboratory at College Park, Md. They have designed and assembled equipment at the laboratory which is necessary for study of the different methods for producing fish protetin concentrates.

At the present time they have produced some of the first experimental products. We think these studies will eventually lead to economical, nutritious, and wholesome fish protein concentrates which will be acceptable to our colleagues in the Food and Drug Administration and will be acceptable for human use.

### Biological Digestion Process

One of the processes under study is quite interesting, Mr. Chairman. This is a biological digestion process. We grind up these fish. We then inoculate the mixture either with a mold or bacteria and this causes its digestion.

When this digestion occurs as a result of a yeast inoculation vitamin B–12 is produced. So we have a secondary nutritional benefit added to the very high quality protein that is produced.

We can envisage, Mr. Chairman, using some of the rough fishes in this way.

We might have very clean, almost sterile tanks aboard the vessels. We might catch the schooling fishes, grind them into a liquid pulp as they come aboard, put them in the hold and inoculate them on the fishing grounds. The digestion process occurs while the vessel is coming back from the fishing grounds. We would then pump the liquid out of the vessel, through centrifuges and into a spray dryer. It would be ready for sale very soon after it comes off our factory ships.

We do not think this is impossible, and, in fact, we are looking forward to this development.

RESEARCH VESSEL FOR NORTH PACIFIC AND BERING SEA

Chairman HAYDEN. Last year when funds were provided for construction of a fishery research vessel for use in the North Pacific and Bering Sea, it was expected that the contract would be advertised about mid-September and awarded in December. What is the status of this construction at this time?

Mr. MCKERNAN. Mr. Chairman, the final design is just out. We were a little delayed on it. The final plans and specifications are being reviewed prior to its going out for bid. Construction will start soon.

Chairman HAYDEN. How long will it be before you have it?

Mr. MCKERNAN. We will have the vessel in approximately 1 year after the construction starts.

INCREASES FOR OCEANOGRAPHY PROGRAM

Chairman HAYDEN. Your summary sheet shows a proposed increase of over $900,000 for various oceanography programs. Would you please place in the record for each of the programs the amount available in fiscal year 1964 and the total amounts requested for fiscal year 1965? Also, discuss briefly each of the programs.

Mr. MCKERNAN. Yes, Mr. Chairman. The $900,000 refers to oceanography programs in the coastal and offshore subactivity in our budget. We also have increases of $100,000 in the shellfish subactivity, and $140,000 in the exploratory fishing subactivity. In several of these programs the increases are required because of either a new vessel or a new laboratory. And these, in a sense, are built-in increases brought about by laboratories that have been approved by this committee and by Congress in the past several years.

NORTH PACIFIC OCEAN

Now, there are some increases, slight increases, in programs in the North Pacific Ocean, for example, where we have been working with Japan and Canada in attempting to understand the fishery resources of the North Pacific Ocean, especially those that are fished intensively by the fishermen of the three nations and, in fact, also by a fourth nation, the U.S.S.R.

ATLANTIC COAST

On the Atlantic coast, we are also carrying out rather intensive work as a part of our obligation under the International Commission for the Northwest Atlantic Fisheries. Here, again, in connection with our new research vessel, we have found it necessary to request some increased funds to fully utilize the facilities and to carry out our obligation under the International Convention for the Northwest Atlantic Fisheries.

CENTRAL PACIFIC

Now, in the central Pacific, Mr. Chairman, we have a laboratory at Hawaii, and at this particular laboratory we are carrying out rather extensive investigations of the central Pacific Ocean as it affects the eastern Pacific and the fishery resources of the eastern Pacific.

In addition, we have achieved a rather important breakthrough scientifically showing the relationship between the ocean currents and the tuna resources of the central Pacific Ocean. We are in a position

now to predict abundance and time of occurrence of some important tuna resources in this particular area.

Now we are attempting to study and find out exactly what it is in the ocean that is causing this correlation to occur. And we are extremely pleased with the progress we are making in this area, Mr. Chairman.

We will be glad to add additional information for the record as requested.

Chairman HAYDEN. Will you, please?

(The information requested follows:)

*Oceanography programs with increases*

| Program | Available, 1964 | Increase budgeted | Total proposed for 1965 |
|---|---|---|---|
| A. Coastal and offshore research | ($5,989,300) | ($902,500) | ($6,891,800) |
| 1. North and central Pacific oceanography | 3,562,200 | 550,000 | 4,112,200 |
| 2. North Atlatic and gulf oceanography | 2,186,100 | 286,000 | 2,472,100 |
| 3. Cooperative oceanographic programs | 241,000 | 66,500 | 307,500 |
| B. Shellfish | [1] 543,600 | 100,000 | 643,600 |
| C. Exploratory fishing and gear research | 1,219,800 | 140,000 | 1,359,800 |
| Total | [1] 7,752,700 | 1,142,500 | 8,895,200 |

[1] Excludes $100,000 nonrecurring item.

NORTH AND CENTRAL PACIFIC OCEANOGRAPHY

The principal programs in these areas are concerned with biological and oceanographic factors influencing the growth, survival, migrations, distribution, and abundance of such important commercial species as the salmons, tunas, king crab, and whales. New techniques have been developed for identifying the continent of origin of red salmon captured at sea. Blood typing is being used in separating races of salmon and tuna, knowledge of which is essential in management of these resources. The behavior of tunas in response to various physical and chemical factors and to fishing gear is being studied in order to improve the efficiency of the fishing process. Research on whale biology and movements is being coordinated with the International Whaling Commission. A 3-year environmental study has been started on the major bays and straits of southeastern Alaska.

NORTH ATLANTIC AND GULF OCEANOGRAPHY

Research on fishes of the North Atlantic is now particularly urgent because of the increased fishing effort from U.S.S.R. and other foreign nations now being applied to stocks that are already heavily exploited. Studies are underway on the ecology of the New England ground fishes to determine the effects of this additional fishing effort. Bureau laboratories along the Atlantic coast are also concerned with the biology and fluctuations in abundance of the Atlantic herring (or Maine sardine); predator control, diseases; and taxonomic and life history studies on estuarine and other coastal fishes. In the Gulf of Mexico, programs are devoted primarily to studies of the biology and conservation of shrimp. Also underway is a program of exploration and development of the fishery resources of the tropical Atlantic.

COOPERATIVE OCEANOGRAPHIC PROGRAMS

Four programs are included under this category that are related to the national oceanographic program being coordinated by the Interagency Committee on Oceanography. The National Oceanographic Data Center, founded in 1961, is becoming increasingly important to oceanographers because of the expanding body of knowledge in this field. Ocean surveys are not a primary concern of the Bureau of Commercial Fisheries but they do provide an opportunity to obtain

useful information. Bureau scientists are placed on the survey ships of other agencies, such as the Coast and Geodetic Survey. The coordination of our oceanographic effort both internally, with other Federal agencies, and internationally is an important function that requires special staffing. One of the bottlenecks in the growth of oceanography, particularly biological oceanography, is the present obsolescence of instruments in current use. Our modern ships and laboratories require the development of new and specialized instruments and equipment.

SHELLFISH

The national oceanography program emphasizes the need to develop better methods for farming the sea and understanding the genetics of marine species. One of the most fruitful avenues of research by Bureau scientists in this direction has been the studies of artificial culture methods for oysters and clams. Literally millions of these shellfish have been hatched and grown in the laboratory. Using leased oysterbeds, in bays and estuaries bordering the sea, scientists need to study the application of these laboratory experiments to commercial practice. Selective breeding has been an important procedure in the success of American agriculture. Application of selective breeding techniques to the farming of shellfish could be equally important. The basic knowledge of shellfish genetics is very limited and is essential to the development of selective breeding.

EXPLORATORY FISHING AND GEAR RESEARCH

An important part of our biological oceanographic program involves explorations aimed at discovery of new fishery resources as well as research and developmental investigations aimed at improving the efficiency of fish-harvesting methods. This work has resulted in direct benefit to U.S. fishermen. For example, explorations off the northeast coast of South America have resulted in some 140 U.S. shrimp vessels currently producing about 5 million pounds of shrimp annually valued at $2.5 million. Benefits have also accrued to U.S. ground-fish fishermen off the northwest coast as a result of the discovery of new trawling grounds. Gear research efforts aimed at developing electro trawling gear for groundfish and shrimp have yielded encouraging results. Indications are that an increase of one to five times the catch of conventional trawls may be commercially feasible.

The increase of $140,000 will provide for shrimp and king crab explorations in the offshore waters of Alaska, compilation of a national inventory of fishery resources, and gear development for locating pelagic species of fish. Initial explorations off Alaska would be concentrated in the offshore waters between Prince William Sound and Kodiak Island, where it is believed that considerable unutilized quantities of these shellfish exist.

As a documentation of the resource survey portion of our oceanographic program, a compilation of a national inventory of the characteristics, concentrations, and seasonal movements of the individual species of fish and shellfish of the Continental Shelf and Slope will be undertaken. This investigation will bring together the extensive data developed by past, current, and proposed exploratory fishing programs in readily usable form so that data will be of maximum benefit to U.S. commercial fishermen and scientists. Gear research and development efforts will be concerned with devising economical methods of extending the search capabilities of vessels harvesting pelagic species of fish. Efficient methods of locating commercial quantities of fish, such as tuna, in the oceanic areas are necessary in order for U.S. fishermen to harvest the tremendous potentials existing there.

TROPICAL ATLANTIC OCEANOGRAPHIC LABORATORY

Senator MUNDT. Mr. Chairman, if I may ask a question. There is an item of $1½ million for biological research in the tropical Atlantic area. What do you propose to find in this laboratory that you do not get in the others?

Mr. MCKERNAN. This proposed laboratory will be located in Florida and its primary purpose would be to house a scientific staff for high-seas fishery research and exploration. Incidentally, research in cooperation with other agencies of the U.S. Government, including the

Atomic Energy Commission and the Navy, will be conducted in the tropical Atlantic Ocean.

There has been relatively little exploration or exploitation of the fishery resources of the tropical Atlantic. We are quite well aware that there are potential sources here of tuna, mackerel, and herring and pilchardlike fishes.

And, in fact, we have encouraged the American fishing industry to explore this area. Right at the present moment, in cooperation with us, there are large fishing vessels exploring the area off the West Coast of Africa.

We have tied in fisheries with some programs of the Government which are assisting some of the new west African governments. We think these efforts will be of benefit to our own industry, Senator Mundt.

COMMISSION FOR TECHNICAL COOPERATION FOR AFRICA SOUTH OF THE SAHARA

There is an organization for countries south of the Sahara, the Commission for Technical Cooperation for Africa south of the Sahara (CCTA), which is interested in developing the fishery resources. It is getting some aid from the State Department in this area.

We have planned in our Bureau to tie it in with our exploration out farther in the Atlantic and with some of the South American countries.

All of this information is coming into our data center here in the United States, and we expect to use it. We are looking for the time when our fishermen will harvest these areas. We think the tropical Atlantic is the last great unexplored potential fishing area in the ocean.

PESTICIDE RESEARCH

Chairman HAYDEN. Something more than $500,000 increase is requested for research on pesticides, for which $190,000 was appropriated in fiscal year 1964. Also, you have pending a supplemental estimate in the amount of $100,000 for this purpose which I will place in the record at this point.

(The estimate referred to follows:)

*Management and investigations of resources, 1964*

| | |
|---|---|
| Appropriation to date | $17,832,900 |
| Obligations to Oct. 31, 1963 | $7,550,572 |
| Expenditures to Oct. 31, 1963 | $5,941,584 |
| Request | $100,000 |
| Employment: | |
| Average number, current appropriation | 1,053 |
| Number involved this estimate | 5 |

PURPOSE AND NEED FOR SUPPLEMENTAL FUNDS

The $100,000 is needed to expand, to the level required by existing conditions, research on the effects of pesticides on commercial marine species and other organisms important to the food chain of these species. Funds now available to the Bureau could not be diverted for the pesticide program without detriment to the programs for which the funds were appropriated.

JUSTIFICATION

[In thousands of dollars]

| Activity and subactivity | Presently available, 1964 | Revised estimate, 1964 | Increase |
|---|---|---|---|
| Research: | | | |
| Coastal and offshore research | $8,742,100 | $8,842,100 | $100,000 |
| Other | 967,000 | 967,000 | |
| Activity total | 9,709,100 | 9,809,100 | 100,000 |
| Other activities | 8,116,600 | 8,116,600 | |
| Total obligations | 17,825,700 | 17,925,700 | 100,000 |

NEED FOR INCREASE

An additional $100,000 is needed to expand, to the level required by existing conditions, research by the Bureau of Commercial Fisheries on the effect of pesticides on commercial marine species and other organisms important to the food chain of these species. Under the act of August 1, 1958 (85 Stat. 582), as amended by the act of September 16, 1959 (86 Stat. 279), the Bureau has responsibility for review of pesticide applications, providing advice to the fishing industry and the States on effects of pesticides on fish and shellfish, and rendering advice to the chemical industry on testing activities. These responsibilities cannot be met adequately without increased knowledge. This knowledge is presently lacking and cannot be obtained without significantly expanded research.

The widespread use of broad spectrum chemicals to control pests has had detrimental effects on fish and shellfish. Studies conducted to date have determined the concentration causing both acute and chronic toxicity of a number of common pesticides and have demonstrated the sensitivity of marine species to these chemicals. Information is needed especially on pesticide effects on larval and juvenile shrimp, menhaden, salmon, oysters, and other species, and the possible contamination of oceanic food fish. The screening program, to assess the importance of the increasing array of new chemicals being developed and to find less toxic formulations, must be strengthened.

Publication of the book, "Silent Spring" by Rachel Carson has increased public awareness of the dangers to fish and wildlife from indiscriminate use of pesticides. The administration's concern over the situation is reflected in the report prepared by the President's Science Advisory Committee, "Use of Pesticides," released May 15, 1963. This report points out the serious effects of pesticides on organisms such as shrimp, oysters, and salmon, which support commercial fisheries. The report also urges that research and evaluation programs be expanded immediately to counteract the disastrous effects on the fish and wildlife as well as on the health of the Nation's population and the economic aspects of the essential commercial fishing industry.

An increase of $87,600 was requested for Bureau pesticides programs for the fiscal year 1964 to meet program needs as foreseen at that time. That increase was provided. However, an analysis of the "Use of Pesticides" report indicates clearly the need for acceleration of the pesticides programs at a more rapid rate than that possible with available funds. It is evident now that the Bureau cannot, with financing at the present level, accumulate required knowledge rapidly enough to keep pace with the increased public concern over the adverse effects of pesticides, in view of the many compounds already in use and the number of new chemicals being registered.

Concentrations of dangerous chemicals are constantly building up in marine organisms including food fish. Any delay in expanding our pesticides research programs would mean lost ground that can never be regained. It is imperative, therefore, that additional effort in this field be undertaken immediately.

PLAN OF WORK

Expand field studies of the effects of pesticides on marine species under natural conditions by collection of samples of water and animals from several estuaries, bays, and inshore areas throughout the country. Undertake broad studies with other Federal, State, and private agencies of the variations

in toxicity of pesticidal compounds under diverse conditions of climate and terrain. Contract the development of analytical techniques of acute sensitivity to determine residues in living tissues, water and soil with suitable agencies with special competance in this area. Increase laboratory screening programs to speed up the bioassay of new pesticides and to advise pesticide users of better and more specific compounds.

*Program and financing*

| | Presently available, 1964 | Revised estimate, 1964 | Increase |
|---|---|---|---|
| Program by activities: | | | |
| 1. Management | $390,700 | $390,700 | |
| 2. Marketing and technology | 4,097,500 | 4,097,500 | |
| 3. Research | 9,709,100 | 9,809,100 | $100,000 |
| 4. Research on fish migration over dams | 1,496,700 | 1,496,700 | |
| 5. Fishing vessel mortgage insurance | 41,800 | 41,800 | |
| 6. Columbia River fishery facilities | 2,089,900 | 2,089,900 | |
| Total obligations | 17,825,700 | 17,925,700 | 100,000 |
| Financing: New obligational authority | 17,825,700 | 17,925,700 | 100,000 |
| New obligational authority: | | | |
| Appropriation | 17,832,900 | 17,932,900 | 100,000 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration (75 Stat. 353) (−) | 7,200 | 7,200 | |
| Appropriation (adjusted) | 17,825,700 | 17,925,700 | 100,000 |

*Object classification*

| | | Presently available, 1964 | Revised estimate, 1964 | Increase |
|---|---|---|---|---|
| 11 | Personnel compensation: | | | |
| | Permanent positions | $6,891,000 | $6,891,000 | |
| | Positions other than permanent | 576,000 | 601,000 | $25,000 |
| | Other personnel compensation | 283,000 | 283,000 | |
| | Total, personnel compensation | 7,750,000 | 7,775,000 | 25,000 |
| 12 | Personnel benefits | 570,000 | 570,000 | |
| 21 | Travel and transportation of persons | 528,000 | 538,000 | 10,000 |
| 22 | Transportation of things | 93,000 | 93,000 | |
| 23 | Rent, communications, and utilities | 460,000 | 460,000 | |
| 24 | Printing and reproduction | 132,000 | 132,000 | |
| 25 | Other services | 6,142,700 | 6,192,700 | 50,000 |
| 26 | Supplies and materials | 1,154,000 | 1,159,000 | 5,000 |
| 31 | Equipment | 823,000 | 833,000 | 10,000 |
| 41 | Grants, subsidies, and contributions | 195,000 | 195,000 | |
| | Subtotal | 17,847,700 | 17,947,700 | 100,000 |
| | Deduct quarters and subsistence charges | 22,000 | 22,000 | |
| | Total obligations | 17,825,700 | 17,925,700 | 100,000 |

REQUESTED BUDGET INCREASE

Chairman HAYDEN. Would you please inform the committee of the type of work which you plan to do with the $600,000 increase over the appropriation for fiscal year 1964, indicating wherein it differs from your present program?

Mr. MCKERNAN. Mr. Chairman, the increase this year would be $530,000, and the total program level in 1965 would be at $720,000. Now, the pesticides research program as it affects the fishery resources really started in Alaska where, of course, it is necessary to use pesticides to preserve some of our forests in this area.

These pesticides do get into the water and might be carried by some of the fish, such as the salmon. They could be carried out when

they are young and back as they are adults. We need to know whether this actually does occur.

We are doing this to reduce the potential hazards and are working with agencies such as the Public Health Service to make sure there is no danger to people.

### Pesticides in the Gulf Coast Area

Now, in the Gulf Coast area where perhaps the potential hazard to fishery resources is the greatest, as I mentioned in answer to Senator Young's question a little while ago, we find in the laboratory that some of these pesticides in very low concentrations, just a few parts per billion, kill the larval and post-larval stages of some of our most important commercial species, such as oysters, menhaden, and shrimp—the very valuable resources of the gulf and South Atlantic.

What we are attempting to do is to learn how the fishery resources can survive in the face of the need to use pesticides to protect our great agricultural industry. We are cooperating with the Department of Agriculture fully and I am optimistic about the future.

Chairman Hayden. Will all of the $190,000 appropriated last year be expended?

Mr. McKernan. Yes; it will.

Chairman Hayden. How many personnel do you have on this work now and how many more do you propose to employ?

Mr. McKernan. May we submit that for the record, Mr. Chairman?

Chairman Hayden. That will be all right.

(The information referred to follows:)

### Employment for Pesticides Research Program

There are 15 permanent positions attached to the Bureau's pesticides research program for which funds have been appropriated for the fiscal year 1964. The proposed expansion of this program in fiscal year 1964 and in fiscal year 1965 will not require an increase in the number of budgeted permanent positions. An increase in seasonal employment equivalent to 5 man-years would be required for the expanded program proposed in the supplemental budget estimate for fiscal year 1964. No increase above that would be required for the fiscal year 1965 program.

Chairman Hayden. Will you be able to secure fully qualified personnel to fill all these positions?

Mr. McKernan. Yes, Mr. Chairman. We have been working on this problem with the Federal Council for Science and Technology, and other agencies, and are stimulating the interest of young people in colleges to specialize in marine sciences and these particular disciplines.

### Coordination With Other Federal Agencies

Chairman Hayden. Other agencies are also involved in the pesticide research program. How and to what extent do you coordinate your activities with these other agencies?

Mr. McKernan. In this matter of training, we are working through the Interagency Committee on Oceanography and have what we call a Manpower Committee which looks at technical manpower needs in ocean sciences; the National Science Foundation; the Navy; the Atomic Energy Commission; the Smithsonian; practically all agencies in Government carrying out work in marine sciences are involved.

The program is coordinated with these agencies, Mr. Chairman, through a Pesticide Control Board and the Federal Council of Science and Technology. Programs are planned and initiated accordingly.

### Menhaden Research

Chairman Hayden. Last year Congress added $125,000 to your budget to provide for biological studies of menhaden in the Gulf of Mexico. Will you please advise the committee regarding the success you have had with this fund?

Mr. McKernan. Yes, Mr. Chairman. We have this program well underway now. The menhaden fishery in the Gulf is becoming a major fishery. In fact, this year, for the first time, more menhaden were taken from the Gulf of Mexico than along the Atlantic coast.

We, of course, are concerned that these resources do not become overfished. We have had no research done on this before and these funds have provided a good start for us to study the biology and the dynamics of these particular resources to make certain that our fisheries are maintained at the very maximum level of productivity.

### Red Tide Research

Chairman Hayden. Also, last year $60,000 was added to study means of controlling the red tide phenomenon. What have been your results from these studies?

Mr. McKernan. Mr. Chairman, we have been working with scientists in the universities and on our own, and in this regard we are attempting to find a pracitcal means of controlling the bloom of species of the phytoplankton which causes the red tide and kills the fish.

We have studied this to the point where we feel we must carry out research to find a practical means of controlling this. One possible method is chemical control.

We feel that there is something in the water, perhaps one of the dissolved nutrients, causing these conditions. This is what we are trying to find out.

Chairman Hayden. Something is happening. You do not know what it is and you are going to try to find out?

Mr. McKernan. Yes, and try to find out a way to control it, because there is a tremendous investment in recreational facilities in this part of Florida.

### Oyster Research

Chairman Hayden. $100,000 was added to the bill on the floor of the Senate to promote production of oysters by the propagation of disease resistant strains in accordance with Public Law 87–580. Would you describe for the committee the use made of this fund and indicate the results obtained?

Mr. McKernan. Yes, Mr. Chairman. We have been working with the States of Delaware, Maryland, New Jersey, and Virginia in this regard. We have contracted with Rutgers University, the University of Delaware, the University of Maryland, and the Virginia Institute of Marine science.

This is a State-contributing program. The States are contributing one-third of the total funds, and we are hopeful that this particular program will provide the basis for disease-resistant oysters.

DISEASE DEVELOPED IN DELAWARE BAY

Now, you may remember, Mr. Chairman, that this was a new disease that had developed in Delaware Bay. This particular disease is being studied by a number of scientists on the east coast.

Our problem with this $100,000 was to attempt to develop a disease-resistant strain, just like we have in cattle, and in wheat, and in other areas. We have not succeeded yet, but these particular funds were helpful in getting this started and getting State participation in this particular program in the States that are affected.

Senator MUNDT. Did you mention something about Delaware in this, because Senator Boggs has been very much interested in this and I believe it was his amendment that got the money.

Mr. MCKERNAN. Yes, sir.

Senator MUNDT. Is there a contract with some organization?

Mr. MCKERNAN. Yes, the University of Delaware. That is the organization that was chosen by the State to carry out this program and we are working very closely with them.

SURF CLAM RESEARCH

Chairman HAYDEN. Each of the Senators from New Jersey has written to the committee urging that additional funds be provided to enlarge your research program on the sea clams. I believe that your 1965 budget proposes $30,000 for this purpose. The Senators suggest a 3-year program at a total cost of $680,000. Of this amount $230,000 would be required for the first year's work. I presume that this would be inclusive of the amount budgeted.

Would you please comment on the need for such a survey, indicating the situation which gives rise to this need?

MID-ATLANTIC AREA SURVEY

Mr. MCKERNAN. The $230,000 does not include what we have in our budget. We are aware of the interest of many of the people in the mid-Atlantic area to carry out the intensive study on surf clam research. The Atlantic coast surf clam fishery currently produces about $10 million worth of clams at the wholesale level. This is a new fishery, having developed, really, in the last 20 years, and in the past 10 years has increased several fold. It has become a very large fishery and quite an important one.

Unfortunately, there has been very little research done on this clam, because it is taken at some depth, and because the fishery is such a new one. In fact, the fishery is now operating as deep as 20 or 25 fathoms of water. This is about 120 or 150 feet. They are taken by jet dredges and the difficulty is that the Federal Government and the commercial fishermen are concerned lest this type of fishing deplete the beds.

BIOLOGICAL STUDIES

The work suggested by the people in the area would start with biological studies on the surf clam to see what needs to be done in the way of regulation or new gear or more intensive farming of this area to protect the future of these resources.

Now, we have put a small amount of money on surf clam studies. In fact, what we did was complete some other studies and transfer a small amount to this, I believe, $30,000.

Chairman HAYDEN. Do you have any idea of the value of the clams now taken?

Mr. MCKERNAN. Yes. About a total of $10 million a year is the value of this particular sea clam fishery. In my view, there are many more resources of sea clams of the mid-Atlantic coast which we do not know about yet.

Senator MUNDT. In an industry as large as that, are they doing anything in a financial way to make these studies independently or to offer to cooperate with the Federal Government on a matching basis to explore it?

COOPERATION WITH PRIVATE INDUSTRY

Mr. MCKERNAN. This is a very good point, Senator Mundt, and the fact is that the industry has cooperated with us to a considerable degree. At the present time they are putting more money into it than the Federal Government. I would anticipate that they would continue to cooperate.

They have furnished vessels and they have actually furnished money. In fact, they are contributing somewhere in the neighborhood of $25,000, as I recall it, at the present time. I am pulling these figures out of my head, and I might be a little bit off. But this is the general order.

So here we have an industry that is willing to cooperate and furnish not only equipment, but also directly funds. And I would anticipate, having had conferences with these people, that they would continue to cooperate in this way in any new programs.

Senator MUNDT. Is this fishery devoted solely and exclusively to clams of this type, or is this a general fishery operation?

Mr. MCKERNAN. No. There are apparently somewhere in the neighborhood as I remember about 40 or 50 vessels devoted to this particular fishery. They have hydraulic equipment, and there are somewhere in the neighborhood of 300 clam fishermen and about 1,700 people involved in processing these particular clams.

The clams go into the manufacture of such things as clam chowders, the fried clams that are showing up in restaurants, such as Howard Johnsons and other places and are becoming a very valuable resource.

Chairman HAYDEN. Can you economically use the sum proposed for the first year's research?

Mr. MCKERNAN. Yes, Mr. Chairman, we can.

Chairman HAYDEN. I will include in the record the Senators' letters and the attachments to each of them.

(The letters and other matter referred to follow:)

U.S. SENATE,
*Washington, D.C., February 26 1964.*

Hon. CARL HAYDEN,
*Chairman, Subcommittee on Department of the Interior and Related Agencies, Senate Appropriations Committee, Washington, D.C.*

DEAR MR. CHAIRMAN: The eastern sea clam industry now faces a serious threat of depletion of clam beds which could cripple the industry within a few years. I believe the Federal Government should undertake without delay a broadened program of research to assist in this matter.

The Bureau of Commercial Fisheries is already engaged in a small-scale research effort along these lines, and the proposed budget for fiscal 1965 provides

$30,000 for this purpose. The industry has also undertaken a complementary effort on its own initiative. But the situation has become so potentially serious that a greatly intensified research program is essential. Particularly needed are (1) improved knowledge about repopulating depleted clam beds; (2) discovery of additional clam beds; and (3) development of more efficient dredges and other gear.

The sea clam, also known as the surf clam or skimmer, is the basis of an industry which has gained important commercial significance in recent years. This large white clam, which grows up to about 7 inches, now serves as the primary source of supply for minced clams, frying clams, and clam chowder. The chief known beds of these clams, now rapidly being depleted, are located at sea some 15 to 25 miles southeast of Point Pleasant, N.J., the home port for much of the clam fishing fleet.

Some 30 million pounds of raw clam meat are produced annually in this industry, with more than 2,000 fishermen and processing plant employees located in the States of Maine, Massachusetts, New York, New Jersey, and Delaware.

The Bureau of Commercial Fisheries, in cooperation with the Eastern Sea Clam Committee of the Oyster Institute, has recently completed preparation of a "Surf Clam Research Proposal," a copy of which I am enclosing. I am also enclosing more detailed figures on the proposed program, together with an "object classification" of the proposal, both of which were prepared by the Bureau of Commercial Fisheries.

Unfortunately, the program was drawn up too late for inclusion in the 1965 budget at the time of its submission. It is my hope, however, that because of the worsening of the situation, the subcommittee will act to provide the Bureau of Commercial Fisheries an additional $230,000 for sea clam research in fiscal year 1965. Departmental witnesses scheduled for the February 27 hearing of the subcommittee will, I am sure, be able to discuss the program in detail and answer any questions the subcommittee may have.

May I request that this letter, together with its enclosures, be made a part of the subcommittee's hearings record.

Sincerely,

CLIFFORD P. CASE, *U.S. Senator.*

Enclosures.

*Surf clam research program*

| | |
|---|---|
| Biological research: | |
| 1. Studies of reproduction, growth, and life history of surf clam | $45,000 |
| (*a*) Reproductive cycle | 20,000 |
| (*b*) Growth rates and relative abundance of year classes in different areas | 25,000 |
| 2. Study of surf clam abundance distribution and other population characteristics | 55,000 |
| (*a*) Population dynamics including recruitment, effects of fishing, recovery of fished areas, and survival | 20,000 |
| (*b*) Surf clam distribution and abundance | 25,000 |
| (*c*) Factors affecting surf clam survival | 10,000 |
| Total | 100,000 |
| Exploratory fishing: | |
| 1. Development of techniques | 10,000 |
| 2. New Jersey area | 20,000 |
| 3. Delaware-Maryland area | 15,000 |
| 4. Virginia-North Carolina area | 15,000 |
| 5. New York and southern New England | 15,000 |
| Total | 75,000 |
| Gear research: | |
| 1. Deep water jet dredging | 25,000 |
| 2. Submersible pump dredge | 20,000 |
| 3. Airlift pump | 10,000 |
| | 55,000 |
| Total, 1st year | 230,000 |

SURF CLAM RESEARCH PROPOSAL

*Object classification*

[In thousands of dollars]

| | | |
|---|---|---|
| Funds: | | |
| 11 | Personnel compensation: Permanent positions (total) | 92 |
| 12 | Personnel benefits | 11 |
| 21 | Travel and transportation of persons | 19 |
| 22 | Transportation of things | 6 |
| 23 | Rent, communications, and utilities | 12 |
| 24 | Printing and reproduction | 4 |
| 25 | Other services | 43 |
| 26 | Supplies and materials | 15 |
| 31 | Equipment | 28 |
| | Total obligations | 230 |
| Personnel: | Total number of permanent positions | 13 |

I. BACKGROUND INFORMATION

*Introduction*

The Atlantic coast surf-clam fishery currently produces approximately 30 million pounds of raw clam meats per year. The production approximately equals the total landed weight of whole lobsters. The fishery is a relatively new one, having been developed during the last two decades. The catch reached 1 million pounds for the first time in 1944 and totaled 11 million pounds in 1954 and 30 million in 1962. The fishery was originally a bait fishery, but has now achieved national importance as a primary source of supply for minced, chowder, and frying clams.

*Occurrence*

Surf clams are known to occur in coastal waters from Newfoundland to the Gulf of Mexico. Locally, fishermen and trawlers occasionally catch clams or empty shells on various parts of Georges Bank in depths as great as 200 feet. Populations of sufficient density to support commercial fishing activities, however, have been located only along the shores of Long Island, N.Y., and off New Jersey. The dense beds apparently have rather clearly defined and abrupt margins corresponding to physical features of the bottom, such as sand bars or sand ridges. Fishing observations indicate that individual beds or "colonies" are predominantly of one size, suggesting that each colony may be the result of a single spawning that occurred during a period of favorable physical and chemical conditions.

*Fishing areas*

The surf-clam fishery for food, as distinguished from the bait fishery which for many years was an important source of bait to cod fishermen and the party boat fishermen, first developed in the New York coastal area during World War II. It soon spread to more productive beds off the New Jersey coast. Landings were made at various ports along the coasts of New Jersey, Delaware, and Maryland. In 1950, a plant for processing surf clams was opened in Wildwood, N.J., and the New Jersey-Delaware coasts became the center of the fishery. Today, owing to the presence of readily accessible beds of clams nearby, most of the fishing fleet operates out of Point Pleasant, N.J., and most New Jersey landings are made in that port.

Fishing is conducted in an area approximately 15 to 25 miles southeast of Point Pleasant. The more productive clam beds now fished are in depths ranging from 60 to 90 feet. Some fishing is done in depths to 120 feet. Vessels make individual 1-day trips and usually fish 4 days a week. The daily catch is either shucked and shipped by truck as fresh clams to other plants for further processing or shipped whole as shell stock.

*Vessels and gear*

There are about 30 vessels engaged in the New Jersey surf-claim fishery. These range in length from 65 to 90 feet, are diesel powered, and are mostly of Florida shrimp boat design. An average crew consists of the captain and two fishermen. Vessels are pilothouse controlled and rigged with a special towing bit and steel outrigger boom for retrieving fishing gear.

The fishing gear consists primarily of a sled dredge, a centrifugal pump, and a 5-inch (internal diameter) hose. The hose is permanently attached to the

dredge during fishing operations. Sea water is pumped under pressure through a series of nozzles into the ocean floor. By proper direction of the nozzles, the hydraulic action of the water washes the sand from over and around the clams. This action allows the deep-set knife blade to pass under the clams and lift them from the bottom so that they pass back into the sled section.

Surf clams, because of their size, relatively thin shells, and ability to bed in hard, coarse-grained sand, present a problem in dredging. The nonhydraulic dredges, used in the hard clam (*Venus mercenaria*) fishery of southern New England, tend to crush the surf clams when forcing them from the bottom. The high-pressure jet clam dredge was therefore developed specifically for harvesting surf clams.

### II. INDUSTRY PROBLEMS

*Problem A: Depletion of existing beds*

The demand for surf-clam meats has grown continually since inception of the food fishery and consequent fishing intensity has increased accordingly. The nature of the fishery is such that productive beds are rapidly fished down to a point where they no longer support profitable fishing. When a new bed of clams is found, several boats characteristically "go to work on it" until production of good marketable clams decline to the point of uneconomic fishing. Heavy exploitation of a species which is slow growing and has a low replacement rate can result in rapid depletion. This process may be occurring with surf clams. Practically nothing is known of the rate of repopulation of depleted areas. In fact, there is some evidence that there may be a number of successive years in which no appreciable recruitment has occurred. Knowledge is required on the life-span of surf clams, the age when they first enter the commercial fishery, the ages that are important to the fishery, the annual rate of recruitment, and the growth rate before and during their period of economic importance.

*Problem B: Lack of knowledge about abundance and distribution*

Since the landed value of raw surf clam meats is relatively low ($0.06 per pound in 1961) as is the wholesale market value of processed meats ($0.25 to $0.35 per pound), clam fishing must be carried out at peak efficiency and is dependent on the continued availability of large clams in heavily populated, easily accessible beds. Therefore, the abundance and distribution of stocks, as well as the effects of fishing on abundance and on the clam stocks must be fully understood. Means must also be found to detect and evaluate significant changes in abundance and to estimate the reproductive capacity and sustained yield of clam stocks. The limited exploratory fishing that working fishermen can afford to do has not been sufficient to locate new areas to support the fishery in the future. Within 1 or 2 years, the supply on known grounds and potentially productive areas will likely be exhausted. At this point, the surf clam fishery, which has been vital, growing, and prosperous to date, will inevitably go into decline unless additional clam populations can be found.

*Problem C: Need for more efficient gear*

Current commercial fishing gear can be fished to approximately the 100-foot depth. Fishing and sampling results, however, indicate that the resource likely extends beyond this. Developmental work is needed to extend the depth range of the fishing gear to the maximum depth of the clam resource. Moreover, while the commercial jet dredge produces well on heavy, dense clam beds, there are other areas apparently of much greater extent that produce clams at a lower catch rate. These areas may be the future fishing grounds of the surf clam fishery. More efficient equipment capable of covering more ground in a fishing day will be required to harvest the more sparsely populated grounds.

Developmental work is also needed on sampling equipment for survey work. Operations with standard commercial fishing gear are effective but time consuming. Considerable developmental work is needed on sea-sampling methods to allow rapid progress in survey work.

### III. PLAN OF ATTACK

A survey and exploration of all possible surf-clam-producing areas is required as a first step in the solution of the problems of the surf clam industry. Such a survey is needed to completely delineate the surf-clam resource available for current use and for future expansion. Two limited short-term surveys

have been made in the past. One was conducted by the U.S. Bureau of Commercial Fisheries in Nantucket Sound in 1958. The second, financed largely by contributions from fishermen, was conducted by the Bureau in the summer of 1963, adjacent to some of the current fishing areas. These limited surveys made it possible to develop basic surf clam study methods and procedures and made the more complete and needed survey work technically possible.

*Solution to problem A: Depletion of existing beds*

The surf-clam fishery usually depends on an accumulation of year classes, but the relative contribution of each is important in determining the total "standing crop" of commercial sizes in any given year. Also, long-term changes in proportions of different ages in fished stocks should provide clues to the intensity of fishing effort that the stocks can tolerate. For these reasons, it is important to know the ages and relative proportions of each age group in the fished stocks. Yearly surveys of age structures of clam stocks in various areas should be initiated and combined with an assesment of the success of each new year class.

An important aspect of this work involves repopulation studies of areas depleted by the fishery. This should involve a comparison of virgin, fished, and depleted areas, and should determine the rate of recruitment and the number of years it takes for stocks of depleted beds to return to commercial levels of abundance.

While most immediate studies are directed toward assessing survival, long-term studies of factors that affect survival are important. The role of such factors as predation and disease should be examined.

In summary, the following basic biological studies of the surf clam should be started quickly and simultaneously with work on problems B and C: (1) the annual reproductive cycle of surf clams in different areas should be studied to determine the frequency, duration, and times of spawning: (2) determination should be made of geographic variations in spawning time and frequency: (3) the size and age at which surf clams reach sexual maturity in the area of commercial importance must be determined.

*Solution to problem B: Source of supply*

In order to alleviate or avoid the impending crisis and to provide adequate knowledge of the extent of the resource upon which it depends, a comprehensive exploratory fishing program to assess the occurrence, abundance, and commercial potential of the surf clam in the waters off the North Atlantic coast is required and could be implemented in the following manner:

A sturdy, seaworthy fishing vessel of 65 to 85 feet overall length (50 to 75 tons displacement) should be made available for the sea operations. This vessel would be equipped with the most efficient and effective jet-dredge equipment available. A grid pattern of 1-mile-spaced coordinates based on the loran navigation system would be laid out over areas of survey. Fishing tows would be made at the intersections of the 1-mile coordinate lines. As the survey proceeds, additional sampling devices which might be more efficient and so result in accelerated coverages of survey area would be evaluated. Possible auxiliary devices and systems that might be of particular use are:

1. Underwater television to allow observation and photographic recording of clam beds and the operation of sampling gear.
2. A clam sounder equipped with special underwater hydraphones and submarine-type, electrical-conductor cable.
3. A large clamshell bucket-type dredge to take a standard size sample of the sea bottom and its inhabitants.

Areas showing best potential would be fished intensively with the jet-dredge gear to provide definite commercial evaluation of the available resource. As the survey proceeds, special attention would be given to the depth range of the surf clam and the black quahog. When the depth ranges have been definitely established, survey operations would be restricted to those depths, resulting in more rapid and intensive coverage of the areas of potential value.

Operations would be started off the New Jersey-Delaware coasts adjacent to the present active commercial fishery. Areas south of this and then to the northward of it would be explored in succession. Finally, more distant offshore

banks would be investigated. The general order of succession of these areas is as follows:

1. New Jersey coastal waters offshore from existing fishery to the maximum depth range of exploitable populations.
2. Delaware coastal and adjacent waters.
3. Maryland coastal and adjacent waters.
4. Virginia coastal and adjacent waters.
5. Long Island, N.Y.
6. Long Island to Cape Cod.
7. North Cape Cod to Cape Ann.
8. Cape Ann to Portland, Maine.
9. Georges Bank and Gulf of Maine Banks.

*Solution to problem C: Development of more efficient gear*

A gear-development program should be prosecuted simultaneously with the exploratory fishing program. Such investigations would include the use of a submersible electrically driven pump to supply the dredge water jets; possible application of an airlift system to allow continuous transfer of clams from the dredge to the vessel deck; an automatic shell separator to remove the dead shell stock from the catches; and an investigation of the possibility of landing the dead shell stock ashore at a financial gain.

*IV. Proposed annual budget*

| | 1st year | 2d year | 3d year |
|---|---|---|---|
| Biological studies of surf clam, life history, and population dynamics | $100,000 | $100,000 | $100,000 |
| Exploratory fishing studies of surf clam distribution and abundance | 75,000 | 80,000 | 85,000 |
| Development of more effective gear | 55,000 | 50,000 | 35,000 |
| Total | 230,000 | 230,000 | 220,000 |

U.S. SENATE,
COMMITTEE ON LABOR AND PUBLIC WELFARE,
*February 24, 1964.*

Hon. CARL HAYDEN,
*Chairman, Interior Appropriations Subcommittee,*
*U.S. Senate, Washington, D.C.*

DEAR MR. CHAIRMAN: I am attaching for your subcommittee's information a copy of a letter from Mr. William J. Kleb concerning the need for a 3-year surf clam survey and research program. I believe a substantial case was made for such a program at hearings before the House Merchant Marine and Fisheries Committee last October, so I urge the subcommittee's approval of the necessary funds in the fiscal year 1965 budget.

With best personal regards,
Sincerely,

HARRISON A. WILLIAMS, Jr.

F. H. SNOW CANNING CO.,
*Wildwood, N.J., February 12, 1964.*

Hon. HARRISON A. WILLIAMS, Jr.,
*U.S. Senate, Washington, D.C.*

DEAR SENATOR WILLIAMS: On February 27, 1964, there will be an amendment made to the fisheries appropriations to cover a 3-year ocean survey and research for the surf clam industry. This industry represents $25 million in trade per year. Our raw clam supply is being depleted along the eastern seaboard and we have asked the Fisheries Subcommittee to hear our case for Government assistance. The dates of this hearing were October 2 and 3, 1963.

Sir, this industry is located in the State of New Jersey, approximately three-quarters of the companies involved having plants, boats, and labor all from New Jersey. The passage of this fisheries appropriations to include our portion would keep our plants located where they are, and no matter where the Government may find new beds or areas of clams, they can be trucked or shipped to our existing plants.

We hope you will investigate and help in all ways to have this appropriation go through.

Very respectfully yours,

WILLIAM J. KLEB, *General Manager.*

### FISH MIGRATION OVER DAMS

Chairman HAYDEN. Last year you stated that the last remaining problem on research on fish migration over dams was that of successfully passing fish up over the high dams and getting the young fish over them on their way back down to the ocean. I assume that this will be the major expense in the coming fiscal year. I note, however, that the $1,407,000 which you request is a decrease of $89,700 from the amount appropriated for you last year. Your justifications state that it will be necessary to defer some projects to a subsequent fiscal year. Which projects will be deferred?

Mr. MCKERNAN. What we will do is defer some projects dealing with upstream migration of adult salmon. We are a little bit further ahead on this particular phase of the work than we are on the downstream phases.

### COLUMBIA RIVER FISHERY DEVELOPMENT PROGRAM

Some time ago, Mr. Chairman, about 3 years ago, we stopped any further expansion of the Columbia River fishery development program. This is a program in which we are attempting to mitigate losses of fish resulting from Federal water development projects in the Columbia River. We contributed, at least the Federal Government as a whole did, to some 21 new or rehabilitated hatcheries in this area. Well, the real question was whether they were producing adult fish economically.

### EVALUATING THE PROGRAM

So, working with the Bureau of Sport Fisheries and Wildlife, we started to evaluate this particular program. We have marked each year in the neighborhood of 7 to 10 million young salmon at the hatcheries prior to their release for migration to the sea. Now we do not have the money necessary to evaluate the results of these marking experiments.

By clipping certain fins we have a distinctive mark for identifying these fish in order to study their survival. If we find hatcheries not producing economically, then we can look at that particular hatchery and find out why and correct the deficiency or do more drastic things, if necessary.

It is necessary that we protect the initial investment of the Federal Government. Because of limitations of budget, we have proposed a reduction of $100,000 from the fish migration study for use in the evaluation study. Since the two programs are in different parts of the budget structure, it appears as an increase in the Columbia River fishery facilities—the operation and maintenance of the Columbia River fishery development program.

FISHING VESSEL MORTGAGE INSURANCE PROGRAM

Chairman HAYDEN. Do you care to comment on the value of the fishing vessel mortgage insurance program for which you request $42,600 in fiscal year 1965?

Mr. MCKERNAN. Yes, Mr. Chairman. I think we have approved, through fiscal year 1963, 23 applications under this mortgage insurance program, and it has been a tremendous help to an industry in need of additional capital. I see that we have approved six additional insurance applications so far this fiscal year and it is anticipated that the amount approved will be $2.2 million at the end of fiscal 1964.

By the end of 1964, we anticipate that we will have approved 40 applications. This has been a helpful program and it has not been costly to the Federal Government. The Federal Government has not suffered because of these mortgage insurance programs.

COLUMBIA RIVER FISHERY DEVELOPMENT PROGRAM

Chairman HAYDEN. Also, the committee would appreciate your comments with regard to the status and success of your program on Columbia River fishery facilities.

Mr. MCKERNAN. I mentioned that very briefly before, Mr. Chairman. The Columbia River fishery resource is a very valuable one, because people, not only of Washington, Idaho, and Oregon, participate in the harvest of this resource from the recreational and commercial standpoint from the mouth of the Columbia River all the way up into Idaho, for that matter. Also these fish are taken from Alaska to San Francisco Bay by the high seas troll fishery.

This particular resource, of course, suffered because of these many, many dams which are blocks to their migration and spawning.

Now, our programs of providing hatcheries and fish ladders as well as stream clearance, where we have cleared out logging debris that has clogged the streams, has been effective in providing new spawning areas.

PROBLEM OF IRRIGATION CANALS

In the past, agricultural interests in the Columbia Basin have gone very heavily into the irrigation of crops. Irrigation canals located on the tributaries of the Columbia River were dead end traps to the young salmon.

We have put in very inexpensive screens in these ditches and diverted the young fish back down the stream again. We have put in about 650 of these and they have been very successful.

EVALUATION OF THE PROGRAM

Right now, Mr. Chairman, we are carrying out what I consider to be a quantitative evaluation of this program. I think next year when I appear before you we will have some concrete numbers.

Chairman HAYDEN. We hope so because there is no more valuable fishery anywhere.

Mr. MCKERNAN. No, sir; it is a wonderful fishery.

SPECIAL FOREIGN CURRENCY PROGRAM

Chairman HAYDEN. You estimate your needs in fiscal year 1965 for the special foreign currency program at $300,000. This is the same

amount as was made available in fiscal year 1964, and the division of it into funds for marketing and technology, and for research, is the same. The justifications will be placed in the record.

(The justification statement referred to follows:)

HIGHLIGHT STATEMENT

The purpose of this program is to complement Bureau research programs for the benefit of the American fishing industry through work performed in foreign countries with surplus foreign currencies. Since the Bureau program began in fiscal year 1962, contracts have been signed with research institutions in India, Pakistan, and Israel.

In technological research, studies are being continued in India by the Council of Scientific and Industrial Research, New Delhi, and are entitled "Investigations on the Influence of Processing Methods and Other Factors on the Edible Quality and Nutritional Value of Fish Protein Concentrate (FPCC)." In fiscal year 1963 the Nutritional Research Laboratories, Indian Council of Medical Research, initiated research entitled "Studies on Nutritive Value of Fish Protein Concentrate." The Hebrew University of Jerusalem is continuing studies entitled "Lipid Metabolism in Fish Muscle." An additional study was entered into in fiscal year 1963 with the Hebrew University of Jerusalem, entitled "Lipoproteins of Fish Tissues." Additional projects for fiscal year 1964 are currently under consideration for inclusion in the Israel and India research programs on fish protein concentrate and lipid chemistry.

In biological research, good progress is being made on four contracts in Israel with the Hebrew University and Sea Fisheries Research Station. A comprehensive report has been received on the contract concerning breeding schemes for the improvement of edible fish. This important scientific document has been made available to laboratories of both Bureaus where research in this field is being carried out for use in furthering their research efforts. The contract to develop a control for external fish parasites achieved success in eliminating parasites on live market-bound fish by use of a chemical compound. Results on the contract dealing with the life history of tuna show the type of food consumed plus information on tuna age and growth. In India, a research contract on the nervous system of fish was signed this year with the University of Delhi, and a contract has been established covering research on lake productivity in Pakistan.

*Management and investigations of resources (special foreign currency program)*

| | |
|---|---|
| Appropriation, 1963 (total available) | $300,000 |
| Appropriation, 1964 (total available) | 300,000 |
| Budget estimate, 1965 | 300,000 |

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 | | |
|---|---|---|---|---|
| | | Total appropriation | Transfers | Amount available |
| 1. Marketing and technology | $125,000 | $125,000 | ---------- | $125,000 |
| 2. Research | 175,000 | 175,000 | ---------- | 175,000 |
| Total | 300,000 | 300,000 | ---------- | 300,000 |

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| 1. Marketing and technology | $125,000 | $125,000 | $125,000 | ---------- | ---------- | ---------- |
| 2. Research | 175,000 | 175,000 | 175,000 | ---------- | ---------- | ---------- |
| Total | 300,000 | 300,000 | 300,000 | ---------- | ---------- | ---------- |

A tabulation of the programs to be conducted with the foreign currencies by country follows. Amounts are shown in their U.S. dollar equivalents.

| Country | Marketing and technology | Research | Total |
|---|---|---|---|
| India | ---------- | $55,000 | $55,000 |
| Israel | $75,000 | 80,000 | 155,000 |
| Pakistan | ---------- | 40,000 | 40,000 |
| Poland | 50,000 | ---------- | 50,000 |
| Total | 125,000 | 175,000 | 300,000 |

*1. Marketing and technology*

| Subactivity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| Technology | $125,000 | $125,000 | $125,000 | ---------- | ---------- | ---------- |

*Technology.*—The estimate of $125,000 is the same as for 1964.

*Plan of work.*—Technological studies using counterpart funds are being designed to complement similar studies being done in the Bureau's domestic technological laboratories. During the current fiscal year, new contracts will be negotiated in foreign countries in the fields of nutrition as it relates to fishery products and investigations of the fundamental chemical and physical characteristics of fish oil and fish protein. Special emphasis will also be placed on negotiating an agreement with Polish researchers for studies on fisheries refrigeration aboard the vessel and at shore installations. Poland is presently using a number of modern sterntrawling factory ships on which fish are caught, processed, packaged, and frozen. The vessels are far more technically advanced than any similar vessels in the United States. The results of research on improving the techniques of freezing and handling fish at sea, using these modern vessels, will provide technical information badly needed to design and construct similar vessel and shore installations in this country.

*2. Research*

| Subactivity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| Coastal and offshore research | $175,000 | $175,000 | $175,000 | ---------- | ---------- | ---------- |

*Coastal and offshore research.*—The estimate of $175,000 is the same as for 1964.

*Plan of work.*—Research will be continued on the two 3-year projects underway in India with the University of Delhi and Aligarh Muslim University. A number of other contract proposals have been received from India, Israel, and Pakistan. These are in the process of being evaluated by Bureau scientists for possible financing in fiscal year 1965. We find that most of the contract proposals under consideration supplement Bureau programs. These countries assign high-caliber scientists to these contracts.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: Total obligations | $300,000 | $300,000 | $300,000 | |
| Appropriation | 300,000 | 300,000 | 300,000 | |
| Obligations by objects: | | | | |
| 21 Travel and transportation of persons | 5,796 | | | |
| 22 Transportation of things | 176 | | | |
| 23 Rent, communications, and utilities | 5 | | | |
| 25 Other services | 288,668 | 300,000 | 300,000 | |
| 26 Supplies and materials | 5,355 | | | |
| Total obligations | 300,000 | 300,000 | 300,000 | |

PAST ACCOMPLISHMENT AND FUTURE PLANS

Chairman HAYDEN. Please comment for the committee on your accomplishments with the funds which have been provided to you in the past year, and relate them to the work which you plan during the coming year.

Mr. MCKERNAN. Yes, Mr. Chairman. We have contracts with educational institutions in India, Pakistan, and Israel. In Israel, for example, for the fat metabolism in fish muscle, and for the genetic breeding of fish. This latter contract I just mentioned has produced some very interesting results.

BREEDING OF FISH

As you know, Mr. Chairman, we have been experimenting in various parts of the country with this. Perhaps the best known work in the United States on selective breeding of fish stocks has been done by Professor Donaldson at the University of Washington.

These scientists in Israel are carrying on this work and developing certain concepts and certain principles for producing a superior brood stock of fish which we believe will complement very well our programs here in the United States.

We are having some difficulties in some countries, because of negotiation delays and other matters, but, on the whole, this program has been successful, although not as successful as I would have liked. It has produced both in the technological and biological research some new data and information which I believe will be of value to the American fishing industry when it is applied.

Chairman HAYDEN. At least to the extent of the value of the foreign currency?

Mr. MCKERNAN. I think even more so, Mr. Chairman.

Senator MUNDT. Are there any dollar amounts involved in this?

Mr. MCKERNAN. These are all Public Law 480 funds.

REQUEST FOR ADDITIONAL TIME FOR CONTRACT NEGOTIATION

Chairman HAYDEN. You are proposing a difference in the appropriation language. Please explain to the committee why you feel that the language used in prior years is not sufficient for your purposes.

Mr. MCKERNAN. We propose an appropriation language change to make the funds available until expended, Mr. Chairman, in order to give us a little more time to negotiate the contracts. We have had difficulty in this respect.

Mr. Chairman, if my information is correct, practically all other agencies do have these funds on a no-year basis.

CONSTRUCTION

Chairman HAYDEN. There will be placed in the record the justifications for the proposed appropriation of $4,788,000 for construction. This amounts to an increase of $388,000 over the amount appropriated in fiscal year 1964.

(The justification statement referred to follows:)

*Construction*

| | |
|---|---|
| Appropriation, 1964 | $4,450,000 |
| Unobligated balance from prior years | 4,164,125 |
| Total available for obligation | 8,614,125 |
| Decreases (1964): | |
| Fishery facilities | 7,281,165 |
| Columbia River fishery facilities | 1,332,960 |
| Subtotal | 8,614,125 |
| Increases (1965): | |
| Fishery facilities | 4,200,000 |
| Columbia River fishery facilities | 588,000 |
| Total available for obligation | 4,788,000 |
| Budget estimate 1965 | 4,788,000 |

*Analysis by activities*

| Activity | Amount available fiscal year 1964 | Fiscal year 1965 | | | Total available 1965 compared to total available 1964 |
|---|---|---|---|---|---|
| | | Unobligated balances from prior years | Budget estimate | Estimated total available | |
| 1. Fishery facilities | $7,281,165 | | $4,200,000 | $4,200,000 | −$3,081,165 |
| 2. Columbia River fishery facilities | 1,332,960 | | 588,000 | 588,000 | −744,960 |
| Total obligations | 8,614,125 | | 4,788,000 | 4,788,000 | −3,826,125 |

GENERAL STATEMENT REGARDING CONSTRUCTION

All construction items proposed for fiscal year 1965, other than those under the Columbia River facilities activity, are part of the national oceanography program recommended by the Interagency Committee on Oceanography to and approved by the Federal Council for Science and Technology.

The Public Buildings Act of 1959, Public Law 86–249, provides generally that public buildings shall be constructed by the Administrator of General Services. Section 13 of the act excludes from the definition of "public buildings" any

buildings or construction projects "on lands used in connection with Federal programs for * * * conservation purposes, including research in connection therewith." The funds requested herein for construction are required for research on the conservation of fishery resources and, in the opinion of this Bureau, are not required to be included in appropriations of the General Services Administration or to be constructed by the Administrator of General Services.

Funds requested for fiscal year 1965 construction projects will not require any increase in Bureau employment over that authorized for fiscal year 1964.

The estimate in the amount of $4,788,000 for fiscal year 1965 includes $4,200,000 for the fishery facilities activity and $588,000 for the Columbia River Fishery Facilities activity.

FISHERY FACILITIES—$4,200,000

| | |
|---|---|
| (*a*) Construction of a Shellfisheries Research Center at Milford, Conn | $1,000,000 |
| (*b*) Construction of a Biological Research Laboratory for the tropical Atlantic area | 1,500,000 |
| (*c*) Construction of an exploratory fishing vessel as a replacement for the *Oregon* (1st phase) | 1,350,000 |
| (*d*) Equipment for fishery research vessel for use in the North Pacific and Bering Sea | 350,000 |
| Total | 4,200,000 |

(*a*) *Construction of a Shellfisheries Research Center at Milford, Conn., $1,000,000.*—Construction of this facility was authorized by the act approved August 30, 1961 (Public Law 87–173) at a cost of not to exceed $1,325,000. The Department of the Interior and Related Agencies Appropriation Act, 1963, included $160,000, for the purchase of land and land filling to initiate construction. An additional $70,000 was appropriated in the fiscal year 1964 for design of this facility. Work in connection with the acquisition of land for the project has been completed and title to the land is vested in the United States. The contract for architectural-engineering services for the facility provides for completion of design by May 1964. Land filling operations will be started shortly after the design work is completed. The funds requested will provide for construction of the laboratory building, sea water system, outdoor tanks and ponds and service facilities. The balance of the amount authorized for the facility—$95,000—will be required in fiscal year 1966 for the purchase of scientific and other nonfixed equipment needed for maximum utilization of the laboratory.

The research center will be used for the conduct of basic research on the physiology and ecology of commercial shellfish, the development of hatchery methods for cultivation of mollusks, including the development of principles that can be applied to the use of artificial and natural salt water ponds for shellfish culture.

Development of techniques in recent years for artificially spawning and rearing oysters and clams has opened numerous possibilities for more productive research toward solving many important industry problems Such methods as artificially producing seed, selective breeding for desirable characteristics, and chemical control of predators now appear possible. Much of the research has been accomplished with small numbers of shellfish in the laboratory; however, it is important to note that seed production and selective breeding will require the growing of large numbers of bivalves under controlled conditions for considerable periods of time. Present facilities are inadequate to allow suitable development of the techniques that will be of material aid to the industry.

In carrying out this work, special facilities and equipment needed will include an extensive sea water system consisting of storage and settling tanks, filtering and ultraviolet treatment equipment, a heating system, and nontoxic piping and pumps.

Special constant temperature rooms are needed for raising shellfish food and for controlled experiments. Also, special sterilization equipment will be required for growing the food algae.

Expansion of our Milford facility will provide space and equipment for raising and holding large numbers of shellfish. It will also enable the Bureau to conduct pilot-plant studies of the commercial possibilities of desirable shellfish hatchery procedures as well as the training of personnel from industry and State conservation agencies in the use of these methods.

(*b*) *Construction of a Biological Research Laboratory for the tropical Atlantic area, $1,500,000.*—The tropical Atlantic is one of the last remaining ocean areas

with large stocks of undeveloped food resources. The West Coast of Africa, particularly the Gulf of Guinea and waters off the east coast of South America have enormous fishery potentials. A number of foreign countries are exploring and fishing these waters on an ever-increasing scale, and the U.S. fishing industry is also greatly interested in these areas.

In the spring of 1961 the Bureau of Commercial Fisheries proposed to the Interagency Committee on Oceanography (ICO) of the Federal Council for Science and Technology that they sponsor an oceanographic fishery investigation of the tropical Atlantic. The proposal was approved by the ICO and also adopted by the Intergovernmental Oceanographic Commission (IOC). It has now become an international program, with support pledged by several foreign governments and a number of academic oceanographic institutions. The Bureau's part in these international cooperative investigations of the tropical Atlantic will be carried out, initially, by the Biological Laboratory, Washington, D.C. We envision that our Bureau's interests in the tropical Atlantic will extend far beyond these present investigations because of a long-term need to define the resources of the tropical Atlantic and describe their variations in time and space. It is essential, therefore, to establish a land base closer to the area of operations than that at Washington, D.C. The Laboratory will be located in the Miami, Fla., area. A site in Miami has been donated to the Government for construction of the proposed Laboratory.

Sum of $125,000 was appropriated for design of the laboratory in the fiscal year 1964. Preliminary plans have been completed by an architect in Miami. It is expected that final construction plans and specifications will be completed by June 1964.

Preliminary plans call for a three-story concrete building of adjustable module design of about 30,000 square feet. Because of local weather and climate conditions it must necessarily be air conditioned and hurricane proof. The laboratory will initially house a staff of approximately 60 people. The estimate also provides for the demolition and reconstruction and relocation of public facilities.

(c) *Construction of an exploratory fishing vessel as a replacement for the "Oregon" (first phase), $1,350,000.*—In fiscal year 1964, $100,000 was appropriated for the design of a $2 million exploratory fishing vessel to replace the *Oregon*, which now operates in the Gulf of Mexico, Caribbean Sea, and tropical Atlantic areas. A naval-architect-engineering contract has been awarded and design work is scheduled for completion in March 1964.

Funding of the construction of the vessel is planned in two phases, for fiscal year 1965 and 1966. For completion of phase 1 in fiscal year 1965, $1,350,000 would permit the construction of hull and house, installation of the main and auxiliary engines, navigating, safety, and communications equipment. In fiscal year 1966, $650,000 would be necessary to complete the vessel by providing for trawling winches, laboratory, oceanographic, and fish detection equipment, and furnishing and outfitting.

The new vessel will be an essential part of the national oceanographic program. The *Oregon* was built in 1946 for use in commercial fisheries. Its limited range of 4,800 miles, slow speed of 9 knots, and lack of adequate scientific facilities have been a serious handicap in effectively carrying out Bureau exploratory programs, particularly in waters far distant from the Pascagoula, Miss., base of operations. The new vessel is to be about 170 feet in length, will be designed especially for operation in tropical climates and have the following features: (1) Capabilities for an extended cruising range of 9,000 miles; (2) a speed of 14 knots so that time to and from the far-distant portions of the investigation area is held to a minimum, thus allowing maximum working time; (3) sufficient versatility so that adequate assessment of the resources of an area, which is dependent upon sampling that area with a wide array of types of gear, since each type is highly specific in action, can be carried out; (4) sufficiently automated handling and working capability so that the number of operating personnel can be kept to a minimum; and (5) sufficient size and seaworthiness to allow remaining on station in the extremely adverse weather conditions sometimes encountered in tropical waters (hurricanes, water spouts, etc.) and sufficient seaworthiness so that experimental fishing operations can proceed in the face of relatively heavy seas.

The future of the Gulf States fishing industry lies in the location of untapped and entirely new fishery resources in the Gulf of Mexico and adjacent waters. These resources can be defined and their commercial potential ascertained more expeditiously and economically through use of the proposed vessel which would be capable of independent high seas exploratory fishing and gear research opera-

tions. The vessel would be equipped for acoustic and electrical experiments and capable of performing, without major alteration, any and all types of exploratory or experimental fishing operations. The vessel will play an important part in the Bureau's tropical Atlantic oceanography program which is international in scope and requires the utmost skills and equipment.

*(d) Equipment for fishery research vessel for use in the North Pacific and Bering Sea, $350,000.*—The Department of the Interior and Related Agencies Appropriations Act, 1964, included $2,650,000 for this vessel. The basic concept of the new research vessel for the Seattle Biological Laboratory was a suitable platform for progressive research in the fields of fisheries and oceanography. This vessel completely equipped was estimated to cost over $3 million. An additional $350,000 is therefore, required to equip the vessel with the scientific equipment necessary to perform the research for which it has been designed.

This equipment, its cost, and uses are briefly described below:

1. Research sonar, $165,000: Necessary for the detection of fish and food organisms. This specialized sonar is required both to locate and monitor fish populations and food concentration at sea.

2. Precision navigation equipment, $80,000: This is in addition to normal navigational requirements. It will include high resolution radar, loran C, precision depth recorders, and lesser instruments necessary for precise positioning at sea and for setting out and locating floating scientific instruments.

3. Television vehicle and television, $60,000: This is necessary to seek out and study fish, and their behavior, reactions to gear, and other external influences, and their interrelationships.

4. Scientific equipment, $45,000: This would include electronic test and repair equipment, electric core cables for trawl-sensing equipment, monitoring buoys, and special handling equipment for delicate overside scientific equipment.

### Fishery Facilities

The Bureau operates 28 major research laboratories and bases and 24 research vessels over 40 feet in length in discharging its responsibilities for research in marine biology and technology. As a result of steadily increasing responsibilities and expanding programs in the past 15 years many of the shore and vessel facilities have become inadequate. The following reflects the status of program on those projects which have had capital improvements funded beginning with fiscal year 1962:

*Alaska*

Auke Bay:

1962: Construction of salt water system and dock facilities at the Biological Research Laboratory, $200,000. Construction of these facilities is now underway and it is expected that the work will be completed in April 1964.

Juneau:

1964: Design of exploratory fishing vessel for use in the North Pacific Ocean and Bering Sea, $100,000. A contract has been awarded to a naval architect in Seattle, Wash., and design is scheduled to be completed in October 1964.

1964: Design of an oceanographic research vessel (replacement for the *Mackinaw*), $15,000. A contract has been awarded to a naval architect in Seattle, Wash., and design is scheduled to be completed in July 1964.

*California*

La Jolla:

1962: Construction of a Biological Research Laboratory, $2,450,000. This building is now under construction by the M. H. Golden Construction Co., of San Diego and is scheduled to be completed in August 1964.

1963: Construction of an oceanographic research vessel (replacement for the *Black Douglas*), $2,500,000. This vessel which will be based in San Diego is now under construction by The Christy Corp., of Sturgeon Bay, Wis., and the contract calls for completion in October 1964.

1964: Construction of unmanned buoys for use in the eastern Pacific Ocean, $50,000. A contract has been awarded to the University of California at San Diego for design and construction of these instruments. The contract provides for completion by November 1964.

*Connecticut*

Milford:

1963–64: Purchase of land for and design of a Shellfisheries Research Center, $230,000. In fiscal year 1963 $160,000 was appropriated for the purchase of land and for necessary land filling to initiate construction. An additional $70,000 was provided in fiscal year 1964 for design of this laboratory. The land acquisition portion of this project has been completed. Land filling will be deferred pending the completion of design which is now underway by an architectural firm in New Haven, Conn. Preliminary design has been completed and final contract design is scheduled to be completed by May 1964.

*Florida*

Miami area:

1964: Design of a Biological Research Laboratory for the tropical Atlantic, $125,000. A site has been donated to the Government for construction of the proposed Laboratory. Preliminary plans have been completed by an architect in Miami. It is expected that final construction plans and specifications will be completed by June 1964.

*Georgia*

St. Simons Island:

1963: Rehabilitation of facilities at St. Simons Island Lighthouse Station, $30,000. Rehabilitation of the office building has been completed. Other work is either underway or will be commenced in the near future and should be completed by September 1964.

*Hawaii*

Honolulu:

1962: Construction of the *Townsend Cromwell*, an oceanic research vessel for the central Pacific Ocean, $1,775,000. This vessel was built by the McDermott Shipyard, Morgan City, La., and delivered to the Government in November 1963.

*Maine*

Boothbay Harbor:

1962: Construction of shop-garage building and installation of temperature control equipment at the Biological Research Laboratory, $85,000. The construction of these facilities has been completed.

1964: Design of an oceanographic inshore research vessel for use in the Northwest Atlantic Ocean, $15,000. Proposals from naval architects interested in the design of this vessel are now being evaluated. It is expected that the design contract will be awarded in February 1964, with plans and specifications to be completed by August 1964.

*Maryland*

Oxford:

1962: Construction of service buildings and other facilities at the Biological Research Laboratory, $170,000. These facilities are now being built by the Evans Construction Co., of Salisbury, Md., and construction is estimated to be completed about March 1964.

*Massachusetts*

Gloucester:

1962: Construction of an exploratory fishing and gear research vessel for use in the Northwest Atlantic Ocean (replacement for the *Delaware*), $1,250,000. Design of the vessel was delayed in order to make a thorough review of stern-ramp trawlers recently built in Europe so as to incorporate the most modern features in this prototype vessel. The Bureau has issued a bid invitation for construction in accordance with plans and specifications prepared by a naval architect in New York City and it is expected that the construction contract will be awarded in January 1964. The estimated schedule for completion of the vessel is December 1964.

*Michigan*

Ann Arbor:

1963: Construction of a biological research laboratory, $1,356,000.

1964: Scientific equipment for the biological research laboratory, $90,000. The laboratory building is under construction by Spence Bros. of Saginaw, Mich., and work is expected to be completed by December 1964.

1964: Design of hydrobiological research vessel for use in the Great Lakes, $20,000. Design is being performed by a naval architect in New York City and the plans and specifications are scheduled to be completed by February 1964.

*Mississippi*

Pascagoula:

1964: Design of an exploratory fishing and gear research vessel (replacement for the *Oregon*), $100,000. This design is being prepared by a naval architect in Pascagoula, Miss., and the plans and specifications are expected to be completed in March 1964.

*North Carolina*

Beaufort:

1963: Construction of a radiobiological laboratory, $395,000. This building is now under construction by the Fred C. Gardner Co., Inc., of Kinston. N.C., and it is estimated that work will be completed in April 1964.

*Texas*

Galveston:

1962–64: Construction of an oceanographic research vessel for the Gulf of Mexico, $350,000. The sum of $200,000 was appropriated in fiscal year 1962 for construction of this vessel to be based at Galveston, Tex. When the Bureau attempted to contract for design, competent naval architects advised that any vessel built with the funds available would be totally inadequate for the purposes intended. Compromise attempts to build a vessel that was not equipped with the basic facilities for a well-rounded program of biological research but which could fit the funds available would not assure a reasonable likelihood of success of the specific research tasks outlined for the gulf coast resources. An additional $150,000 was appropriated in fiscal year 1964 for this vessel. Design will be completed by a naval architect in New Orleans, La., about March 1964 and it is expected that construction will be completed about 1 year later.

*Washington*

Seattle:

1963: Construction of a research laboratory, $2,257,000. This building is now under construction by the John H. Sellen Construction Co., of Seattle. The contract provides for completion in December 1964.

1963–64: Construction of an oceanographic research vessel for use in the North Pacific Ocean and Bering Sea, $2,800,000. Design funds in the amount of $150,000 were provided in fiscal year 1963 and $2,650,000 was appropriated in fiscal year 1964 for construction of this vessel to be based in Seattle. The plans and specifications which are being prepared by a naval architect in Seattle will be completed in February 1964. It is expected that a construction contract will be awarded by April 1964 and that the vessel will be completed by June 1965.

1964: Design of a gear research vessel for use in the North Pacific Ocean, $35,000. Proposals from naval architects interested in the design of this vessel are now being evaluated. It is expected that the design contract will be awarded in January 1964, with the plans and specifications to be completed by October 1964.

COLUMBIA RIVER FISHERY FACILITIES, $588,000

The estimate of $588,000 for the Columbia River fishery facilities activity is a decrease of $400,000 from 1964. Programs conducted under this activity are grouped under five general categories as follows:

| | Appropriation, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|
| (a) Hatchery facilities | $45,000 | $67,000 | +$22,000 |
| (b) Operational studies | 300,000 | 300,000 | |
| (c) Screening diversions | 75,000 | 75,000 | |
| (d) Stream improvement | 478,000 | 56,000 | −422,000 |
| (e) Program supervision and inspection | 90,000 | 90,000 | |
| Total | 988,000 | 588,000 | −400,000 |

(a) *Hatchery facilities.*—The $67,000 is to provide for replacement of a deteriorating wood stave pipeline at the Big Creek, Oreg., hatchery, with a new conduit. Failure of the existing pipeline would jeopardize the entire hatchery production operation as it carries all of the water supply for the current hatchery operations, including hatching of eggs and rearing of young fish.

(b) *Operational studies.*—The $300,000 is needed for operational studies involving four major areas—predator control, habitat improvement, supplemental methods of propagation, and improvement of fish culture techniques. These studies are designed to provide information necessary to accomplish essential revisions in management procedures in the Columbia River program and to provide answers to difficult problems basic to resource management. Emphasis is being placed on studies and methods to improve the total production of salmon and steelhead at minimum cost.

Seventeen operational studies are to be conducted in fiscal year 1965. Sixteen of these will be conducted under contract by the five State fish and game agencies of Idaho, Oregon, and Washington; and by the Universities of Idaho, Oregon State, and Washington. The Bureau of Sport Fisheries and Wildlife will conduct one study on a reimbursable basis.

Nine studies, totaling $187,000, will be conducted on development of fish cultural techniques. This work includes selective breeding of salmon, development of means of marking young fish for future identification of adults, reintroduction and transplantation of runs, and determination of factors associated with downstream migration of young fish.

One study, for $6,000, will be conducted on improvement of natural habitat. It will be directly concerned with improving streamflow conditions and spawning areas.

Two studies, totaling $33,000, will be conducted on predator control. Both are concerned with reduction of numbers of scrapfish by chemical or toxin treatments.

Five studies, for a total of $74,000, will be conducted on controlled natural rearing. Four rearing ponds in Oregon and Washington will be operated to determine the biological and economic feasibility of utilizing natural and artificial ponds and lakes as rearing areas for salmon.

(c) *Screening diversions.*—The $75,000 is to provide for screening of 25 existing unscreened irrigation diversions on the main Salmon River and East Fork Salmon River in Idaho to prevent entrance into the diversions and subsequent loss of downstream migrating juvenile salmon and steelhead in this area.

(d) *Stream improvement.*—The $56,000 is needed for stream clearance projects in the States of Oregon and Washington. Detailed stream surveys in Oregon have provided information that justifies the improvement of selected areas as suitable habitat for anadromous fish. Streams have been selected for improvement through removal of logjams and other obstructions. Eventually, more than 160 miles of additional stream habitat will be made accessible by the stream improvements planned. A combination of logjam removal, minor falls correction, and stream channel alteration in the eastern Washington area, particularly on the Methow and Yakima systems, will greatly assist in distribution of adult Chinook salmon and steelhead to spawning and rearing areas now partially or wholly unavailable. Serious logjams and small falls exist in Nason Creek and the Chowack, Twisp, and Methow Rivers.

(e) *Program supervision and inspection.*—The $90,000 is for program supervision and inspection, including engineering services required for the design of, and review of detailed plans for, facilities constructed by the Bureau and the cooperating States, as well as inspection services during construction, to insure adequacy and conformity to specifications. During fiscal year 1965, inspection of projects initiated during the year and inspection of projects initiated in fiscal year 1964 but still under construction in fiscal year 1965 will be required. The majority of these projects are located in remote areas where access is difficult and extensive travel is required. Among projects for which inspection will be provided are Lewiston Dam and Selway Falls fishways on the Clearwater River, Idaho, and the Three Mile Dam fishway on the Umatilla River, Oreg. In addition, screening of irrigation diversions in the headwaters of the Salmon River, Idaho, and stream clearance activities in Oregon and Washington will require inspection. Preparation of design and review of plans, as well as inspection during construction, will be necessary for the hatchery pipeline at the Big Creek hatchery.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $10,552,438 | $8,614,125 | $4,788,000 | −$3,826,125 |
| Unobligated balance brought forward | −6,243,563 | −4,164,125 | | +4,164,125 |
| Unobligated balance carried forward | 4,164,125 | | | |
| Appropriation | 8,473,000 | 4,450,000 | 4,788,000 | +338,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 288,196 | 29,000 | 29,000 | |
| 12 Personnel benefits | 19,186 | | | |
| 21 Travel and transportation of persons | 21,322 | 24,000 | 12,000 | −12,000 |
| 22 Transportation of things | 14,940 | 2,000 | 2,000 | |
| 23 Rent, communications, and utilities | 9,583 | 14,125 | 11,000 | −3,125 |
| 24 Printing and reproduction | 2,637 | 3,000 | 1,000 | −2,000 |
| 25 Other services | 1,836,356 | 1,772,000 | 530,000 | −1,242,000 |
| 26 Supplies and materials | 77,020 | 31,000 | 3,000 | −28,000 |
| 31 Equipment | 3,278,164 | 2,734,000 | 1,700,000 | −1,034,000 |
| 32 Lands and structures | 5,005,034 | 4,005,000 | 2,500,000 | −1,505,000 |
| Total obligations | 10,552,438 | 8,614,125 | 4,788,000 | −3,826,125 |

SHELLFISH RESEARCH CENTER AT MILFORD, CONN.

Chairman HAYDEN. Would you please comment briefly on each of the major items of your proposed construction program?

Mr. MCKERNAN. Yes, Mr. Chairman. In response to a question by Senator Mundt I did speak about the biological research laboratory for the tropical Atlantic area, so I will not repeat myself here, unless you especially want me to.

We also have in the budget the construction of a shellfish research center at Milford, Conn., for $1 million. This particular expansion of this research laboratory would allow us to further our work in developing oyster farming and the techniques and technology of both oyster and clam farming as we now farm our lands.

Senator MUNDT. Do you mean if this laboratory, if constructed, will go part way in meeting the problem you described about this New Jersey clam fishery? Is that not a shellfish, the clam?

ARTIFICIAL PROPAGATION OF THE CLAM

Mr. MCKERNAN. Yes, it is, Senator. We do not know enough about surf clam biology yet to be certain, but in general, I can say this, that we have developed techniques for artificially farming and artificially

raising the hard shell clam. This is the little clam that is found in the markets here in Washington, the quahog.

If we learn enough about the surf clam, I think eventually we might be able to propagate it artificially.

Senator MUNDT. You are talking about a new laboratory, are you not?

Mr. MCKERNAN. We are talking about expansion of an existing laboratory.

Senator MUNDT. I was simply raising the question whether or not one of the missions might well be to pursue the potentiality of this surf clam field.

Mr. MCKERNAN. Yes, eventually it could. The reason I hesitate, Senator Mundt, is because we do not really have enough scientific information to be sure that the habits of this clam will lend itself to the kind of artificial propagation work we are considering for the clams which are found inshore and in brackish waters and bays.

But, in a sense, I think what you say is correct.

### FRESH WATER CLAMS ARTIFICIAL PROPAGATION

Senator MUNDT. Have you done any work in your department on fresh water clams? Do they have any commercial value?

Mr. MCKERNAN. Yes, they do. The clams of the Mississippi are now being used for seeds for artificial cultivation of pearl oysters in Japan.

I have seen these particular blanks from our Mississippi fresh water clams inserted into the flesh of the pearl oyster, the mother shell as the Japanese call it, in Japan and then they leave it in there a certain length of time and the mother shell, the mother oyster puts a secretion around it which forms the cultered pearls that we buy in the market.

Senator MUNDT. That is very interesting, because I had a friend who almost went broke in South Dakota trying to develop this.

Mr. MCKERNAN. You will be interested to know that the Japanese have developed their techniques in the fresh water mussel and they are doing that in one of their very large lakes. So it is possible. We just have not learned the technique.

### EDIBILITY OF FRESH WATER CLAMS

Senator MUNDT. Other than the pearl industry, is there any edibility value in fresh water clams?

Mr. MCKERNAN. No, it is not found to be a very highly desirable species. I have never eaten one myself, so I cannot say from first-hand experience, but it has been used to some extent, I think, for stock feed in some places. But mostly the shells have been used, because they comprise a very lusterous mother-of-pearl layer on the shells themselves.

### REPLACEMENT FOR "OREGON"

Coming back to your question, Mr. Chairman, we have requested the construction of an exploratory fishing vessel as a replacement for one of our vessels which is about 20 years old. This is a vessel that was not constructed for fishery research at all, the *Oregon*. It is based in the Gulf of Mexico.

We are asking for $1,350,000 for the first phase of construction. The total cost of this vessel, as I recollect, is about $2 million.

EQUIPMENT FOR NORTH PACIFIC RESEARCH VESSEL

We are also asking for equipment for a fishery research vessel for use in the North Pacific and the Bering Sea in the amount of about $350,000. This will provide the highly technical and specialized equipment necessary to locate fish schools and so on, for doing this sort of research.

Chairman HAYDEN. It is not standardized? You have to work it out for your own specifics?

Mr. MCKERNAN. That is correct, Mr. Chairman.

Senator MUNDT. May I ask a question?

Chairman HAYDEN. Yes.

NATIONS HARVESTING FISH IN NORTH ATLANTIC

Senator MUNDT. I notice at the bottom of page 9 of your statement you say that 13 nations, including Russia, are harvesting fish in the North Atlantic. What are these nations, and how many of them have the latest vessels you were talking about?

Mr. MCKERNAN. The United States, Canada, U.S.S.R., Poland, West Germany, Denmark, Norway, the United Kingdom, Iceland, France, Spain, Portugal, and Italy.

Senator MUNDT. How many of them have these latest ships?

MODERN STERN TRAWLERS

Mr. MCKERNAN. The West German ships comprise a growing fleet of big stern trawlers. The Poles, as well as the Soviets, of course. We have all heard about the expansion of the Soviet fleets.

The United Kingdom has several of these new vessels. France, as well as Italy, Iceland, and Canada, are all rebuilding and reconstructing their ground fish fleets.

Senator BARTLETT. How many of these modern stern trawlers do we have?

Mr. MCKERNAN. We do not have any.

USE OF FOREIGN CURRENCY TO BUILD STERN TRAWLER

Senator MUNDT. Have you ever thought about getting the use of foreign currency to get Poland to build you a stern trawler?

Mr. MCKERNAN. I would like to. I do not think it is allowed. We do have, I am told by my staff, Senator Mundt, a plan for some design studies by these people, because they are ahead of us in the design of these latest trawlers. There is no question about this. I do not mean to belittle the attainments of our naval architects, because we have some very excellent ones in this country. But these people have been building these ships and have them at sea.

Our naval architects can design all they want, but if they cannot find anyone to build them, we do not know if they will work.

Senator MUNDT. Do the fishermen or the Government provide the ships for these other nations?

PURCHASE OF FOREIGN FISHING VESSELS

Mr. MCKERNAN. It varies, of course, Senator, considerably. But, for the most part, most countries provide greater assistance than does our own country in the construction of these ships. One of the biggest problems we have—incidentally, I think the Senate should be very proud to have passed the Magnuson-Bartlett bill which would provide for an equalization of construction costs. One of our problems is that our fishermen cannot buy foreign fishing vessels in foreign countries where they can get them the cheapest.

We can buy all kinds of radios or other equipment, but fishermen cannot buy fishing vessels except in U.S. yards.

Fishing vessels are approximately 50 percent more expensive to build here in the United States than elsewhere. Right to begin with, it puts our fishermen in the same North Atlantic fishing grounds at a disadvantage with these foreign nations.

But countries such as Canada, at the present time, and in the Atlantic area, are allowing their fishermen either to build vessels at home, in which case if they build in Canadian yards, they have a 55-percent government subsidy, or they can build them overseas if they wish.

BUILDING FISHING VESSELS OVERSEAS

Senator MUNDT. Why can we not build them overseas?

Mr. MCKERNAN. It is against the law. I think it is prohibited by an act called the Jones Act, passed in 1792, and is still on the books.

Senator MUNDT. Does that apply to all ships?

Mr. MCKERNAN. Just those ships that are documented for fishing or coastal trade. But, you see, our fishermen now, as never before, are in dire competition on common fishing grounds with foreign fishing boats. And in addition to this, of course, they are competing on the same markets, on the same products, with these fishermen on foreign vessels. It really is a very great handicap to our fishermen.

FISHING IN THE PERU CURRENT

Senator MUNDT. When you listed the countries catching more fish than the United States, how did they get ahead of us? Particularly, how did Peru get ahead of us?

Mr. MCKERNAN. Because they happen to be wonderfully favored by nature. Off the coast of Peru occurs one of the most, if not the most, prolific area of the world ocean, in what is commonly called the Peru current. It swings up along off the coast of South America and heads across the equator.

In doing so, it causes turbulences that bring enrichment from the bottom. In fact, they are really fertilizers and exactly the same kinds of fertilizers that we apply on our lands.

When you get to the upper surfaces of the ocean, plants are formed and in the presence of light these fertilizers stimulate food production for anchoveta.

This particular fishery last year landed about 7 million tons of anchoveta, which produced a little over a million tons of fishmeal. A great deal of the fishmeal came into this country for use in preparation of poultry and hog food.

### El Niño and Callao Painter

Incidentally, they are having a little trouble right now. Occasionally, when the winds die down, the current system tends to break down off the coast of Peru and Chile, and they have what they call an El Niño. This reverses the trend of oceanic productivity and leads to the so-called Callao Painter.

This is translated as something having to do with foul paint and what it amounts to is, the whole current system breaks down and fish and plankton die in tremendous quantities.

The anchoveta are spread out a great deal at such times and are not caught so the fishery is not doing as well at the present time as it has in the past few years.

Senator Mundt. Are these fish something that the Peruvians have exclusive rights to fish, or can other countries fish there?

Mr. McKernan. Fishermen from our country fish tuna off the coast of Peru. The anchoveta occurs really within their own territorial limits for the most part.

Some are found outside their territorial limits, but at the present time no other fishermen are fishing anchoveta. Other fishermen are fishing tuna in this area and our own fishermen are, too.

### Stream Improvement Program on the Columbia River

Chairman Hayden. There is a reduction of $422,000 from the amount available to you last year for stream improvement under the activity headed Columbia River Fishery Facilities for which you request only $56,000 this year. Does this indicate that your stream improvement program is nearing completion?

Mr. McKernan. Yes, Mr. Chairman, insofar as stream clearance is concerned. We are coming to a point where the costs of stream clearance will be less and less. We have cleared the major streams in the lower Columbia Basin that are available to salmon and steelhead and we propose a reduction in this program, at least until we have evaluated more precisely the results of the stream clearance carried on there.

### Construction of Fishing Vessels

Chairman Hayden. For fiscal year 1965 you are not requesting funds for subsidy payments in connection with construction of fishing vessels. The statutory period for applications for such assistance has expired. I will, however, place in the record the statements which you furnished concerning this item.

(The statements referred to follow:)

### Highlight Statement

The purpose of this activity is to assist those segments of the fishing industry which have been injured by imports to construct new, modern fishing vessels to assist them in meeting foreign competition. This program began in fiscal year 1961. A total of 14 applications have been received totaling $1,254,000. Subsidies totaling $549,200 have been paid to assist in the construction of six vessels. Seven applications for subsidy payments totaling $648,000 were received during fiscal year 1963. Seven applications were being processed as of December 31, 1963, and one application has been withdrawn. The final date for the filing of subsidy applications under this program was June 12, 1963. The processing of applications will be completed during fiscal year 1964.

*Construction of fishing vessels*

| | |
|---|---|
| Appropriation, 1963 (total available) | $750,000 |
| Appropriation, 1964 (total available) | 750,000 |
| Budget estimate, 1965 | None |

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 | | |
|---|---|---|---|---|
| | | Total appropriation | Transfer | Amount available |
| 1. Subsidy payments | $93,443 | $670,000 | | $670,000 |
| 2. Program administration | 54,630 | 80,000 | | 80,000 |
| Unobligated balance lapsing | 601,927 | | | |
| Total | 750,000 | 750,000 | | 750,000 |

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| 1. Subsidy payments | $93,443 | $670,000 | | −$670,000 | | −$670,000 |
| 2. Program administration | 54,630 | 80,000 | | −80,000 | | −80,000 |
| Unobligated balance lapsing | 601,927 | | | | | |
| Total | 750,000 | 750,000 | | −750,000 | | −750,000 |

**Funds are not requested for this program in the fiscal year 1965. The program will terminate in fiscal year 1964 because of the deadline of June 12, 1963, for the filing of applications for assistance under the program, provided in the authorizing legislation (74 Stat. 212).**

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $148,073 | $750,000 | | −$750,000 |
| Unobligated balance lapsing | 601,927 | | | |
| Appropriation | 750,000 | 750,000 | | −750,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 11,151 | 18,000 | | −18,000 |
| 12 Personnel benefits | 825 | 1,500 | | −1,500 |
| 21 Travel and transportation of persons | 2,906 | 4,000 | | −4,000 |
| 23 Rent, communications, and utilities | 859 | 3,000 | | −3,000 |
| 24 Printing and reproduction | 90 | 1,000 | | −1,000 |
| 25 Other services | | 1,000 | | −1,000 |
| Services of other agencies | 38,352 | 50,000 | | −50,000 |
| 26 Supplies and materials | 116 | 1,000 | | −1,000 |
| 31 Equipment | 331 | 500 | | −500 |
| 41 Grants, subsidies, and contributions | 93,443 | 670,000 | | −670,000 |
| Total obligations | 148,073 | 750,000 | | −750,000 |

CONSTRUCTION SUBSIDY PROGRAM

Chairman HAYDEN. Would you please indicate to the committee your views as to the value and success of the program?

Mr. MCKERNAN. Yes, Mr. Chairman. We are not asking for any funds for this construction subsidy program, because it terminates this

year. The program that has been in effect applied only to the New England area, and I think it has been successful. It relates to this problem I mentioned previously in response to a question of Senator Mundt.

The New England fisherman simply has not been able to afford the construction of new fishing vessels, and for many years there has been no new construction in New England of these larger fishing trawlers which had formerly fished the Grand Banks and a considerable distance off our coast.

NEW TRAWLERS

Since this program has been in effect, we have approved the construction of about eight new trawlers. Several, now, have been constructed, one by a company in New England. I just recently have talked to the president of this particular company. His vessel was delivered in December 1962, so it had a full year's operation, you see, at the end of this past year.

This has been a very successful operation. The fact that they had some working capital, because they did get a 30-percent construction subsidy from the United States, gave them an opportunity to get the boat out at sea and keep it out there.

The managing owners reported that they expect the first year's operation to be as good or better than they had planned and anticipated.

PLANNED CONSTRUCTION

In fact, they tell me that their projection in the first instance called for a net profit, after taxes, of approximately $20,000. They are planning on constructing another vessel and have applied for another vessel under this program.

So, in other words, if they do have the application in, they will be eligible, even though the program ceases this year. I, personally, think, Mr. Chairman, that the necessity for reconstruction of the American fishing fleet is the primary problem of the American fishing industry today. We must get a new and more modern fleet of vessels if American flag vessels are going to remain in contention as a major fishing fleet.

GENERAL ADMINISTRATIVE EXPENSES

Chairman HAYDEN. For general administrative expenses in fiscal year 1965 the budget proposal is $676,000, which is $23,000 more than was appropriated in fiscal year 1964. The justification will be printed in the record.

(The justification statement referred to follows:)

HIGHLIGHT STATEMENT

The purpose of the general administration program financed by this appropriation is to provide the executive direction and the general administrative management required by the operating programs financed by annual definite appropriations. The administrative management activities, divided into the broad categories of functional-staff work and processing work, include budget formulation and execution, finance management, personnel management, inspection, internal audit, safety, and contract and property management.

Efforts to improve the efficiency of operations financed under this appropriation continued as the task of providing for adequate administrative management for significantly expanded Bureau programs, without increase in administrative staff, became increasingly difficult.

Included under accomplishments in the personnel management program was the development of new classification and qualification standards that emphasize the quality factor in staffing scientific, technical, and administrative programs. Major emphasis has been concentrated on the training and retraining of available manpower. A major objective is a general increase in the level of academic achievement of the professional and supporting staff.

As a further step in management improvement, the regional and area offices developed a regional or area comprehensive budget submission for fiscal year 1965. This change in procedure served to utilize to a greater extent the knowledge and skills of field personnel responsible for program operations, executive direction and administrative services in the interest of improved long-range financial planning and budget formulation.

Considerable effort has been devoted to improving financial reports to better serve management requirements. New accounting equipment has been purchased during the past 2 fiscal years which has the capability of producing certain information through an automatic process. A study is being conducted in the Washington office to determine the feasibility of utilizing punchcard equipment in conjunction with the new accounting equipment for processing monthly cost accounting and distribution data. The use of an automatic data producing technique will make possible the production of more timely and meaningful financial reports.

The major effort of the property management unit was devoted to construction contract administration, execution of research and development contracts with universities and other outside groups, and procurement of specialized scientific equipment. With the significant Bureau program expansion, the contract administration workload requires an ever greater amount of time and effort to handle these activities adequately.

During fiscal year 1963, 28 research and development contracts with educational and scientific institutions required audit. In fiscal year 1964, a minimum of 92 audits will be required on research and development contracts. Currently, audit programs are being developed for the recurring review of all Bureau financial management activities. As a further protective and constructive aid to management, future plans include the audit of each regional and area accounting office every 2 years including a selected number of laboratories and field stations.

*General administrative expenses*

| | |
|---|---|
| Appropriation, 1963 | $600,000 |
| Supplemental appropriation, 1963 | 21,850 |
| Total available, 1963 | 621,850 |
| Appropriation, 1964 | 653,000 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | |
|---|---|
| Departmental expenses: | |
| Nonrecurring cost of replacing bookkeeping machine | −13,000 |
| To provide for increased pay costs for fiscal year 1964 positions | +10,100 |
| To provide for increased costs of executive direction and general administrative services essential to the most effective conduct of expanded Bureau programs | +9,000 |
| Subtotal | +6,100 |
| Regional office expenses: | |
| Nonrecurring cost of replacing bookkeeping machines | −26,000 |
| To provide for increased pay costs for fiscal year 1964 positions | +12,900 |
| To provide for purchase of accounting equipment | +30,000 |
| Subtotal | +16,900 |
| Net increase, 1965 | 23,000 |
| Budget estimate, 1965 | 676,000 |

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 | | |
|---|---|---|---|---|
| | | Total appropriation | Transfers [1] | Amount available |
| 1. Departmental expenses | $225,611 | $291,900 | | $291,900 |
| 2. Regional office expenses | 356,224 | 361,100 | | 361,100 |
| Unobligated balance lapsing | 40,015 | | | |
| Total | 621,850 | 653,000 | | 653,000 |

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | program |
| Departmental expenses | $225,611 | $291,900 | $298,000 | +$6,100 | +$10,100 | −$4,000 |
| Regional office expenses | 356,224 | 361,100 | 378,000 | +16,900 | +12,900 | +4,000 |
| Unobligated balance lapsing | 40,015 | | | | | |
| Total | 621,850 | 653,000 | 676,000 | +23,000 | +23,000 | |

[1] To provide for increased pay costs for fiscal year 1964 positions.

The estimate of $676,000 is to provide for executive direction at the Bureau's headquarters and at the five regional offices, and for the general administrative services at these offices in connection with programs financed with funds budgeted under annual appropriations. Administrative activities, divided into the broad categories of functional-staff work and processing work, include budget formulation and execution, financial management, personnel management, inspection, internal audit, management analysis, safety, and contract and property management. The cost of facilitating services not identified here as administrative activities are financed from program funds. General administrative services from programs financed by the permanent appropriation, "Promote and develop fishery products and research pertaining to American fisheries," and by contributed funds, advances and reimbursements, and transfer funds are financed by assessment against the program funds on the basis of predetermined costs. Washington headquarters staff also provides administrative services for the Office of the Commissioner of Fish and Wildlife Service.

*1. Departmental expenses*

| Activity | Fiscal year 1963, amount available | Fiscal year 1964, amount available | Fiscal year 1965, estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Departmental expenses | $225,611 | $291,900 | $298,000 | +$6,100 | +$10,100 | −$4,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*Departmental expenses.*—The estimate for fiscal year 1965 is $298,000. This is an increase of $6,100 over 1964 which included a nonrecurring item of $13,000 for replacement of a bookkeeping machine. The 1965 increase, considering the nonrecurring item, includes $10,100 for increased pay costs, and $9,000 for increased costs of executive direction and general administrative services essential to the most effective conduct of the Bureau's expanded programs. The increase proposed for fiscal year 1965 will not require any increase in overall Bureau employment over that authorized for fiscal year 1964.

*Need for increase.*—The $9,000 increase is needed to provide for increased costs of executive direction and general administrative services required for the most effective conduct of the Bureau's expanded programs. The funds are for additional travel costs and other general expenses. The continued expansion of the Bureau's oceanography programs, and other research programs such as those dealing with pesticides and botulism, and increased responsibilities in the international field has increased significantly the workload of the executive direction and administrative staffs. Increased travel by the Director, Deputy Director, and key administrative officials to meet with international organizations, State officials, officials of cooperating agencies, and field personnel of the Bureau, and to conduct program inspections, is necessary to the most effective discharge of Bureau responsibilities. Increased costs for other than travel, result from additional processing work required to service new and expanded Bureau programs.

*Plan of work.*—The Office of the Director will carry out its responsibilities for the formulation and execution of basic policies for carrying out the functions of the Bureau prescribed by Congress and by the Secretary of the Interior, the conducting of relations between the Bureau and the public, and the preparation and development of program objectives and budgets. The Deputy Director shares with the Director the responsibilities for the supervision and direction of the Bureau.

The Division of Administration will exercise staff supervision over all administrative management activities of the Bureau, including budget formulation and execution, finance management, inspection, management analysis, incentive awards, personnel management, safety, contract and property management, internal audit, and financial assistance investigations. The Division will also provide administrative services for the headquarters office and the Office of the Commissioner of Fish and Wildlife.

*2. Regional office expenses*

| Activity | Fiscal year 1963, amount available | Fiscal year 1964, amount available | Fiscal year 1965, estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | program |
| Regional office expenses | $356,224 | $361,100 | $378,000 | +$16,900 | +$12,900 | +$4,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*Regional office expenses.*—The estimate for fiscal year 1965 is $378,000. This is an increase of $16,900 over 1964, which included a nonrecurring item of $26,000 for replacement of bookkeeping machines. The 1965 increase, considering the nonrecurring item, includes $12,900 for increased pay costs, and $30,000 for the purchase of accounting equipment.

*Need for increase.*—An increase of $30,000 is needed for the purchase of six card-punch couplers and six card-punch machines. This accounting equipment will provide more flexibility in the use of, and greater utilization of the new bookkeeping machines acquired by the Bureau. Compilation of detailed accounting information required for Bureau management, external reporting, and budget use will be simplified and expedited through the automatic recording of accounting data on punchcards. This will result in more efficient utilization of the Bureau's limited administrative staff and more timely and accurate financial and budgetary reporting.

*Plan of work.*—A card-punch coupler and card-punch machine will be synchronized with and wired to each of the new bookkeeping machines. Punchcards containing budget and accounting data will be provided automatically as fund control is being maintained by bookkeeping machine postings. Budget and obligation reports, cost distribution reports, and other accounting statements will be provided to management by machine tabulation of these punchcards and will eliminate the manual maintenance and compilation of this information.

*Analysis by activities (total fund)*

| Activity | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| 1. Departmental expenses: | | | | |
| Direct appropriation | $225,611 | $291,900 | $298,000 | +$6,100 |
| Saltonstall-Kennedy funds | 118,006 | 118,300 | 118,300 | |
| Reimbursement from the Office of the Commissioner of Fish and Wildlife | 8,200 | 8,200 | 8,200 | |
| Subtotal | 351,817 | 418,400 | 424,500 | +6,100 |
| 2. Regional office expenses: | | | | |
| Direct appropriation | 356,224 | 361,100 | 378,000 | +16,900 |
| Saltonstall-Kennedy funds | 260,381 | 273,900 | 273,900 | |
| Great Lakes Fishery Commission (contributed funds) | 36,200 | 37,500 | 38,000 | +500 |
| Subtotal | 652,805 | 672,500 | 689,900 | +17,400 |
| Total | 1,004,622 | 1,090,900 | 1,114,400 | +23,500 |
| Direct appropriation | 581,835 | 653,000 | 676,000 | +23,000 |
| Saltonstall-Kennedy funds | 378,387 | 392,200 | 392,200 | |
| Contributed funds | 36,200 | 37,500 | 38,000 | +500 |
| Reimbursements | 8,200 | 8,200 | 8,200 | |

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $581,835 | $653,000 | $676,000 | +$23,000 |
| Unobligated balance lapsing | 40,015 | | | |
| Appropriation | 621,850 | 653,000 | 676,000 | +23,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 396,423 | 479,000 | 500,000 | +21,000 |
| 12 Personnel benefits | 29,761 | 36,000 | 38,000 | +2,000 |
| 21 Travel and transportation of persons | 41,233 | 41,000 | 46,000 | +5,000 |
| 22 Transportation of things | 2,239 | 3,000 | 3,000 | |
| 23 Rent, communications, and utilities | 18,330 | 18,000 | 20,000 | +2,000 |
| 24 Printing and reproduction | 5,430 | 5,000 | 5,000 | |
| 25 Other services | 14,271 | 17,000 | 18,000 | +1,000 |
| 26 Supplies and materials | 12,963 | 15,000 | 16,000 | +1,000 |
| 31 Equipment | 61,185 | 39,000 | 30,000 | −9,000 |
| Total obligations | 581,835 | 653,000 | 676,000 | +23,000 |

CHANGE OF BUDGET FORMULATION PROCEDURE

Chairman HAYDEN. In the highlight statement accompanying this request is a statement that a change in procedure has been developed during the past year. Would you comment on that procedure?

Mr. MCKERNAN. Mr. Chairman, I think that your question must refer to our budget formulation procedure. We have changed that procedure to provide for greater participation of our field personnel in financial planning and budget execution in the interest of improving our operations in these fields.

Chairman HAYDEN. For fiscal years 1964 and 1965 would you please submit a breakdown by sources of all funds which are to be available for general administrative expenses, including, of course, the program funds of the Bureau of Commercial Fisheries which will be used. If there is an established percentage of the program funds used for general administrative expenses, please indicate that percentage.

Mr. McKERNAN. We will supply that for the record, Mr. Chairman
(The information referred to follows:)

*Funds for general administrative expenses, facilitating and use-based services*

| Source | Fiscal year 1964 amount | Fiscal year 1965 amount |
|---|---|---|
| Annual appropriation for general administrative expenses | $653,000 | $676,000 |
| Permanent appropriation for promote and develop fishery products and research pertaining to American fisheries | 392,200 | 392,200 |
| Contributed funds: Great Lakes Fisheries Commission | 37,500 | 38,000 |
| Reimbursement from Office of the Commissioner of Fish and Wildlife | 8,200 | 8,200 |
| Total | 1,090,900 | 1,114,400 |

Funds budgeted for general administrative expenses are to provide for executive direction and general administrative services which includes budget formulation and execution, financial management, personnel management, inspection, internal audit, management analysis, safety, and contract and property management.

The cost of facilitating services and use-based charges essential to all Bureau operations are charged to funds available to the Bureau, including those for general administrative expenses on a pro rata basis. Facilitating service costs include charges for office rental, utilities, general supplies, telephone, postage, mail handling, employee training, contractual services, transportation, and other items of a similar nature. Also included are charges made by the Department for legal services, library services, health services, etc. The cost of facilitating services and use-based charges are estimated at $670,000 for fiscal year 1964 and $725,000 for fiscal year 1965, or an amount equal to slightly less than 2 percent of the total Bureau funding.

### TRAVEL COST AND GENERAL EXPENSES

Chairman HAYDEN. In the amount requested for departmental expenses, $298,000, the notes show that there is a $9,000 increase for additional travel costs and other general expenses. Will you please distribute this $9,000?

Mr. McKERNAN. Yes, Mr. Chairman.

(The information referred to follows:)

### DISTRIBUTION OF $9,000 INCREASE

The $9,000 is to cover the additional cost of providing essential executive direction and administrative services required for the most effective conduct of the expanded Bureau program proposed for fiscal year 1965. The expanded program will require additional travel by the Bureau directorate and key administrative personnel estimated to cost $5,000. The remaining $4,000 would provide an additional $2,000 for communication expenses, $1,000 for supplies and materials, and $1,000 for other services.

### ADMINISTRATION OF PRIBILOF ISLANDS

Chairman HAYDEN. In fiscal year 1965 you request $2,442,000 for administration of Pribilof Islands, a decrease of $26,000 in the amount made available in the last fiscal year. The justification for this request will be included in the record.

(The justification statement referred to follows:)

HIGHLIGHT STATEMENT

The U.S. Government protects and manages the fur seal herd of the Pribilof Islands in Alaska, maintains the islands as a special reservation for this purpose, and is responsible for the harvesting, processing, and sale of the sealskins. As the operating agency, the Bureau of Commercial Fisheries manage all fur sealing and maintains 2 communities for the 650 Aleuts on the islands. Several hundred persons are employed during the sealing season, including almost 200 Pribilof residents, 50 Aleuts from the Aleutian Islands, 25 technicians from the mainland, and staff supervisors. Physical facilities on the islands include some 200 U.S.-owned buildings—warehouses, residences, dormitories, commissaries, schools, hospitals, powerhouses, shops, and fur-curing plants; an airport on St. Paul Island capable of handling 4-engine aircraft, and concrete landings on each island for tying up shipping lighters. Equipment operated includes five LCM's for lightering freight between shore and ship; rolling stock including trucks, tractors, cranes, etc., and a supply tender operating out of Seattle.

The Pribilof fur seal herd spends the greater part of each year on the high seas where the animals in earlier years were taken in large numbers by other countries. A treaty with Canada, Japan, and the U.S.S.R. commits the United States to a cooperative approach to fur seal research and management problems and a product-sharing system whereby the United States delivers 15 percent of the sealskin production each to Canada and Japan.

The Bureau is responsible for disposition of the U.S.-owned products of the fur seal industry. Sealskins are dressed and dyed and sold at public auction for the account of the United States by private fur processors under contract with the Government. At times the processing of certain byproducts is economically feasible and they are disposed of to the highest bidder.

The 1962 season take of sealskins from the 2 islands for commercial purposes was 77,915. The byproducts plant was not operated because current prices for meal and oil would not have offset the costs of operation. Approximately 10,000 seal carcasses were transported to Vancouver, British Columbia, under a cooperative agreement for experimental utilization as mink feed.

Fewer sealskins were taken in the 1963 season and a portion of the carcasses were again taken by the cooperator processor for experimental utilization. In addition to 150 tons of seal meat, 7 tons of liver were frozen and transported to Bellingham, Wash., by the processor. A contract for disposal of the carcasses at a profit is a future possibility.

The number of permanent island positions was 54 less in 1963 than in 1962, after a new compensation plan was placed in effect on July 1, 1962, which equalized Pribilof wages with rates paid elsewhere in western Alaska. Funds in the amount of $380,000 were made available under the accelerated public works program (APWP) for the rehabilitation of some structures and the award of a contract for construction of four new residences on St. Paul. Through August 31, 1963, 307 man-months of employment have been supported by the APWP. The alleviation of unemployment resulted in a tremendous economic impact on the resident Aleuts.

The work starting on November 1, 1962, embraced a backlog of maintenance and repair jobs on both islands ranging from small jobs requiring only a few man-hours such as replacing broken windows, cleaning and painting walls to more complex projects like completing the electric distribution systems or the construction of four new residences for resident Aleuts.

During the fiscal year 1963 a surplus 210-foot refrigerator vessel, *FSR–791*, was obtained from the Army on a loan basis to replace the inadequate Bureau supply vessel *Penguin II*. The vessel was put to use in the island supply operations in September 1963. Funds in the amount of $150,000 for reactivating the vessel were made available under the APWP.

Operational costs of the 210-foot replacement vessel will be greater than for the 147-foot *Penguin II*, but probably no greater than the combination of using the *Penguin II*, and obtaining necessary additional transportation services required on a reimbursement or charter basis. The *FSR–791* will carry to the islands all of the items of supply required for subsistence of the residents and to support the sealing program, and backhaul annually cured sealskins and byproducts valued at over $5 million.

Future plans for administration of the Pribilof Islands call for the following:

1. Gradual consolidation of the 2 villages over a 10-year period, involving construction of about 40 residences and expansion of facilities at St. Paul to accommodate the St. George population. Construction of the first group of four homes has now been completed.

2. Gradual progression of the Aleut people through guidance and assistance to attain the objectives of maximum economic self-sufficiency, equal participation in American life, and equal citizenship privileges and responsibilities. This includes continued emphasis on education, training, and relocation programs from resident Aleuts; transfer of typical community responsibilities in social, economic, and governmental matters to the Aleut residents, accompanied by withdrawal of the Bureau to interests concerned primarily with fur seal conservation and utilization; and continued cooperation with the several State and Federal agencies which provide special services to local residents under Bureau authority and financing.

3. Continuation of the fur seal industry, and rehabilitation and maintenance of physical structures on St. Paul Island.

Pelagic investigations in fiscal years 1963 and 1964 were centered in the eastern Bering Sea and Unimak Pass area where the feeding range of nursing seals was determined, the migration timing of seals by age class was traced, and the feeding habits of seals, including predation on salmon was studied. Major feeding areas for Pribilof seals were plotted.

Culminating a research program hookworm infection in fur seals was found to be an uncontrollable factor in their environment transmitted through nursing. Many thousand seal pups die annually from the effect of hookworms.

Tag loss, stress and mortality from tagging, and other factors were studied to determine the accuracy of population estimates made from tagging experiments. These sources of error are common to all animal tagging programs. An intensive behavior study conducted on a rookery furnished information vital for future investigations of the early ocean life of fur seals when heavy mortality occurs.

### *Administration of Pribilof Islands*

| | |
|---|---|
| Appropriation, 1963 | $1,998,000 |
| Supplemental appropriation, 1963 | 19,000 |
| Total available, 1963 | 2,017,000 |
| Appropriation, 1964 | 2,468,000 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | |
|---|---|
| Administration of Pribilof Islands: | |
| Nonrecurring cost of vessel conversion | −115,000 |
| To provide for increased pay costs for 1964 positions | +16,000 |
| To provide for increased costs of sealskin curing operations | +64,000 |
| To provide for increased vessel charter costs for fur seal research program | +9,000 |
| Net decrease, 1965 | −26,000 |
| Budget estimate, 1965 | 2,442,000 |

### *Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 | | |
|---|---|---|---|---|
| | | Total appropriation | Transfers | Amount available |
| Administration of Pribilof Islands | $2,001,014 | $2,468,000 | | $2,468,000 |
| Unobligated balance lapsing | 15,896 | | | |
| Total | 2,017,000 | 2,468,000 | | 2,468,000 |

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Administration of Pribilof Islands | $2,001,014 | $2,468,000 | $2,442,000 | −$26,000 | +$16,000 | −$42,000 |
| Unobligated balance lapsing | 15,896 | | | | | |
| Total | 2,017,000 | 2,468,000 | 2,442,000 | −26,000 | +16,000 | −42,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*Administration of Pribilof Islands.*—The estimate of $2,442,000 is a decrease of $26,000 compared to 1964. A program decrease of $115,000 for a nonrecurring item for vessel conversion is offset by an increase of $89,000 of which $16,000 is for pay costs and $73,000 is for program increases. The increases proposed for fiscal year 1965 will not require any increase in overall Bureau employment over that authorized for fiscal year 1964.

ADMINISTRATION OF THE ISLANDS

*Need for increase.*—An increase of $64,000 is needed to provide for wages and travel costs in connection with the employment and transportation to and from the Aleutian Islands of approximately 30 to 35 additional temporary employees required to assist with preliminary sealskin curing operations on the Pribilofs. Prior to the 1963 season the processing contractor was responsible for such wage and transportation costs. Such costs were then deducted from the gross proceeds from sealskin sales as were other contractor operational and cost of goods sold expenses. In the 1963 season the increased costs were met by deferring building maintenance and rehabilitation work. It is essential that the regular maintenance and rehabilitation program be resumed in fiscal year 1965.

*Plan of work.*—The Bureau will continue, and refine, its scientific management and technological utilization of the northern fur seal resource. Local residents from the Pribilof and Aleutian Islands' villages will continue to be used as the principal source of seasonal labor. Programs providing for the care of the 650 Aleut residents of the 2 Pribilof communities and maintenance and rehabilitation of village facilities will be continued.

A major step toward achieving economy, as well as advancing personal development of the Pribilof Aleut population, was initiation of a 10-year program in 1963 to gradually phase out St. George Island as a village and merge it with St. Paul Island. Movement of families will depend on the number of houses constructed per year on St. Paul. It is estimated that funds budgeted for fiscal year 1965 for replacement of residences and maintenance of existing structures and equipment will permit the replacement of two residences.

The permanent labor force will be reduced as rapidly as possible, although during the 10-year consolidation period both villages must be maintained year round, and a larger number of seasonal workers will be required for expanding the facilities at St. Paul Island.

FUR SEAL RESEARCH

*Need for increase.*—The increase of $9,000 is needed for increased costs of vessel charter to operate a larger vessel needed in autumn and early winter in Alaska and increased rent and contractual services for laboratory operation and maintenance.

*Plan of work.*—The renewal of the Convention on Conservation of North Pacific Fur Seals for an additional 6 years requires the United States "to devote to pelagic research an effort similar in extent to that expended in recent years * * *." Present studies of intermingling of seals from Asian and American islands, distribution, abundance, and food habits of seals at sea are to be continued. The protocol to the convention calls for additional research to determine the relative effectiveness of land and pelagic sealing for managing and utilizing fur seal resources and the quality of sealskins produced by each method; and a study to

determine whether land sealing in conjunction with pelagic sealing could satisfy the objectives of the convention.

A long-term population dynamics experiment planned to show whether the Pribilof fur seal herd can be put on a maximum sustained yield basis will be continued. The convention specifies that an adequate number of seal pups will be marked for this purpose. Much of the voluminous routine data needed for population studies will be collected as a management operation and the research effort will be concentrated increasingly on the improvement of population estimation techniques and on studying sources of mortality. These things must be done before satisfactory forecasts of seal harvests can be made or additional action taken toward maintaining a maximum yield of fur seals.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $2,001,014 | $2,468,000 | $2,442,000 | −$26,000 |
| Unobligated balance lapsing | 15,986 | | | |
| Appropriation | 2,017,000 | 2,468,000 | 2,442,000 | −26,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 1,326,264 | 1,576,800 | 1,632,000 | +55,200 |
| 12 Personnel benefits | 83,107 | 97,000 | 104,000 | +7,000 |
| 21 Travel and transportation of persons | 68,751 | 78,100 | 78,000 | −100 |
| 22 Transportation of things | 58,519 | 62,600 | 61,000 | −1,600 |
| 23 Rent, communications, and utilities | 10,694 | 24,200 | 22,000 | −2,200 |
| 24 Printing and reproduction | 4,420 | 1,800 | 2,000 | +200 |
| 25 Other services | 321,206 | 414,300 | 309,000 | −105,300 |
| 26 Supplies and materials | 436,667 | 515,300 | 540,000 | +24,700 |
| 31 Equipment | 35,154 | 47,900 | 44,000 | −3,900 |
| Subtotal | 2,344,782 | 2,818,000 | 2,792,000 | −26,000 |
| Deduct charges for quarters and subsistence | 343,768 | 350,000 | 350,000 | |
| Total obligations | 2,001,014 | 2,468,000 | 2,442,000 | −26,000 |

## Fisheries Loan Fund

Chairman Hayden. There will also be placed in the record your statement in support of your request for an administrative expense limitation of $277,000 in fiscal year 1965 for operation of the fisheries loan fund. This is $7,000 more than was authorized in fiscal year 1964, the increase being attributable to increased pay costs.

(The statement referred to follows:)

### Highlight Statement

The fishery loan fund is a revolving fund established to provide financing and refinancing of operations, maintenance, repair, replacement, and equipment of fishing vesels and gear and for research into the basic problems of the fisheries. A total of $20 million has been authorized for this program of which $13 million has been appropriated.

Between October 1956, when the program began, and December 31, 1963, 1,341 applications ($35.9 million) were received. During this period 689 applications ($15.7 million) were approved.

Ninety-eight applications ($1.6 million) were received during the fiscal year 1963. Fifty-five of these for $827,000 were approved. During the first 6 months of fiscal year 1964, 73 applications ($1,272,000) were received and 16 applications ($264,000) were approved. Thirty-six cases ($843,000) were being processed as of December 31, 1963. This represents an increase in activity in the fiscal year 1964 program in comparison to the fiscal year 1963 program.

No major changes in the program are anticipared for fiscal year 1965.

The status of fishery loan fund cases, as of December 31, 1963, is reflected in the following tabulation:

*Status of fishery loan fund cases as of Dec. 31, 1963*

| Applications | New England and Middle Atlantic | | California | | South Atlantic and gulf | | Pacific Northwest | |
|---|---|---|---|---|---|---|---|---|
| | Number | Amount | Number | Amount | Number | Amount | Number | Amount |
| Received | 334 | $10,540,615 | 193 | $10,681,020 | 322 | $8,090,197 | 241 | $4,056,859 |
| Approved | 174 | 4,717,189 | 114 | 4,827,876 | 122 | 2,823,874 | 139 | 2,219,702 |
| Declined [1] | 91 | 3,228,825 | 33 | 1,380,275 | 118 | 3,004,910 | 51 | 526,955 |
| Ineligible | 22 | 562,224 | 11 | 679,869 | 32 | 882,368 | 21 | 407,790 |
| Withdrawn | 39 | 1,115,022 | 31 | 2,916,120 | 50 | 1,137,719 | 21 | 739,163 |
| Canceled, after approved | 30 | 775,764 | 17 | 737,921 | 20 | 385,641 | 10 | 138,043 |
| Amounts reduced [2] | 89 | 585,327 | 51 | 708,575 | 69 | 241,326 | 30 | 73,783 |
| Pending | 8 | 332,028 | 4 | 174,305 | 0 | 0 | 9 | 89,466 |
| | Alaska | | Great Lakes | | Hawaii and Puerto Rico | | Total | |
| Received | 192 | $1,715,497 | 35 | $394,789 | 24 | $393,070 | 1,341 | $35,872,047 |
| Approved | 113 | 857,811 | 11 | 89,920 | 16 | 206,868 | 689 | 15,737,240 |
| Declined [1] | 43 | 376,141 | 13 | 145,843 | 4 | 51,779 | 353 | 8,714,728 |
| Ineligible | 14 | 168,410 | 5 | 102,832 | 1 | 13,500 | 106 | 2,816,993 |
| Withdrawn | 8 | 36,429 | 5 | 40,572 | 3 | 99,397 | 157 | 6,084,422 |
| Canceled, after approved | 10 | 132,780 | 3 | 17,500 | 1 | 1,800 | 91 | 2,189,449 |
| Amounts reduced [2] | 21 | 39,772 | 5 | 5,622 | 8 | 21,526 | 273 | 1,675,931 |
| Pending | 14 | 236,934 | 1 | 10,000 | 0 | 0 | 36 | 842,733 |
| Cases closed | | | | | | | 583 | 13,266,836 |

[1] Net less amounts approved on reconsideration.
[2] Applications approved for amounts less than applied for.

*Administrative expenses*

| | |
|---|---|
| Administrative expense limitation (total available, 1963) | $258,550 |
| Administrative expense limitation, 1964 | 270,000 |
| Administrative expense limitation to provide for increased pay costs for fiscal year 1964 positions (net increase) | +7,000 |
| Administrative expense limitation, 1965 | 277,000 |

*Administrative expenses*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Administrative limitation | $249,881 | $270,000 | $277,000 | +$7,000 | +$7,000 | |
| Unobligated balance lapsing | 8,669 | | | | | |
| Total | 258,550 | 270,000 | 277,000 | +7,000 | +7,000 | |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*Administrative expense limitation.*—The estimate for 1965 is $277,000, an increase of $7,000 over 1964. This increase in limitation is for pay costs.

*Plan of work.*—Work will be carried on in about the same manner as in the current fiscal year. Functions performed in connection with the administration of the program will include investigating the fishery aspects of loan applications, the financial investigation of loan applications, consideration of applications for approval or disapproval, preparation of authorizations for a loan or letters of decline, preparation of the final loan documents, closing of approved loans, collecting payments, and keeping the required financial records. Legal matters con-

cerned with the closing and servicing of loans are supervised by the Office of the Solicitor in the Secretary's Office.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $249,881 | $270,000 | $277,000 | +$7,000 |
| Unobligated balance carried forward | 8,669 | | | |
| Appropriation | 258,550 | 270,000 | 277,000 | +7,000 |
| BUREAU OF COMMERCIAL FISHERIES | | | | |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 162,895 | 176,000 | 186,000 | +10,000 |
| 12 Personnel benefits | 11,174 | 13,000 | 13,000 | |
| 21 Travel and transportation of persons | 27,227 | 31,000 | 28,000 | −3,000 |
| 22 Transportation of things | 1,270 | 2,000 | 2,000 | |
| 23 Rent, communications, and utilities | 8,380 | 13,000 | 12,000 | −1,000 |
| 24 Printing and reproduction | 10,199 | 2,000 | 2,000 | |
| 25 Other services | 4,103 | 7,000 | 7,000 | |
| 26 Supplies and materials | 775 | 5,000 | 5,000 | |
| 31 Equipment | 5,658 | 1,000 | 1,000 | |
| Total obligations | 231,681 | 250,000 | 256,000 | +6,000 |
| ALLOCATION TO OFFICE OF THE SOLICITOR | | | | |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 16,901 | 18,600 | 19,500 | +900 |
| 12 Personnel benefits | 1,299 | 1,400 | 1,500 | +100 |
| Total, Office of the Solicitor | 18,200 | 20,000 | 21,000 | +1,000 |
| Total obligations subject to limitations | 249,881 | 270,000 | 277,000 | +7,000 |

LOBSTER RESEARCH

Chairman HAYDEN. Do you have any questions, Senator Mundt?

Senator MUNDT. Mr. Chairman, Senators Margaret Chase Smith, Leverett Saltonstall, and Norris Cotton have advised of their deep interest in the problems of the North Atlantic lobster industry. This industry has its principal fishing areas off the coasts of their respective States of Maine, Massachusetts, and New Hampshire.

It is their understanding from the Atlantic States Marine Fisheries Commission that several acute situations are in need of immediate attention, one of which is the very critical problem of the near exhaustion of the inshore fishery supply.

It has been pointed out that a research program designed to protect and enhance the lobster population is vital to continued operation of this important industry.

Representatives of the lobster industry have made certain representations relating to a research program, a copy of which the the Senators ask be made a part of the record at this point.

Chairman HAYDEN. That may be done.

**(The information referred to follows:)**

## A Proposal for Lobster Research

### INTRODUCTION

A program of lobster research is vitally needed to solve the problems facing this facet of the fisheries in the Northeast. Recognition of this need was voiced at the recent meeting of the Atlantic States Marine Fisheries Commission, and a resolution requesting this research was adopted by the commission.

The lobster fishery is fast reaching a critical stage. The inshore fishery is exploited at or near its maximum, while renewed interest in the offshore fishery has been shown by foreign nations as well as Americans. Many inshore fishermen contend that the young of offshore lobsters are carried by ocean currents and eventually recruited to the inshore fishery. If this phenomenon exists, it is imperative to determine the extent and significance of its occurrence. Without such knowledge, continued expansion of the offshore fishery could cripple the inshore supply, or on the other hand, unwarranted restrictions on the offshore fishery could deprive our fishermen of a valuable resource. The information is also essential if foreign fleets enter the fishery and international regulation becomes necessary.

This problem and the others described in this proposal—particularly those concerning basic conservation principles such as the capture of egg-bearing female lobsters—demand attention if the New England lobster fishery is to continue on a productive basis. Without this attention and proper management, a decline in the inshore production can be anticipated if the present rate of increased fishing intensity continues.

### THE RESOURCE

The lobster (*Homarus americanus*) ranges from North Carolina to Labrador, and the principal fishing areas are between Massachusetts and Newfoundland. The New England area accounts for most of the U.S. production, but fishermen from Virginia, Maryland, New Jersey, and New York, as well as Connecticut, Rhode Island, Massachusetts, New Hampshire, and Maine, participate in the fishery. Nationwide, the lobster fishery ranks seventh with an annual landing of 25 to 26 million pounds worth $13 to $15 million. This catch is worth more than the individual total harvests of haddock, scallops, clams, herring, flounders, or mackerel and more than the landings of Pacific halibut and Atlantic Ocean perch combined. Of all major U.S. fisheries the American lobster is one of the first in value per pound—almost $0.50 per pound at dockside. Unit fluctuations in the annual lobster catch produce a greater unit change in value than in any other major fishery.

Baited lobster traps and otter trawls account for nearly all of the U.S. lobster catch. Skindiving is permitted in some States and is the newest method of capture. About 8,000 fishermen use lobster traps and, although relatively fewer fishermen are engaged in otter trawling for lobsters, this latter method has been growing in importance in recent years. The yearly rate of increase in otter-trawl catches since 1958 has been greater than 20 percent and total landings have increased from 1 to 3 million pounds in the last 5 years.

### LOBSTER RESEARCH AND PROBLEM AREAS

Until recently, the lobster fishery was mainly confined to the territorial waters of the several States, and the State research is generally directed toward assisting industry with local practical problems; such as testing new types of lobster traps, devising better methods of holding live lobsters in recirculated water, disinfecting lobster pounds, and providing troubleshooting services to operators of tank storage facilities. In recent years, however, there have been several gradual changes which are destined to alter the entire New England lobster fishery. These changes present problems which are beyond the scope of State responsibility and which are of interstate and international concern.

The most critical change has occurred in the inshore fishery, where in many areas the increase in fishing intensity has already or is nearing the maximum for given populations. This is evidenced by the fact that individual catches are generally decreasing, while the total catch remains more or less static. Coupled with this change is the consistent increased catch of recruit lobsters which is indicative of a reduced abundance of older specimens—a phenomenon associated with an excessive fishing effort.

A more subtle change has occurred in the offshore lobster fishery. The State of Massachusetts indicates that there are now 20 trawlers engaged in this fishery on a year-round basis, and there is growing interest in this fishery from States as far south as Virginia. Catches of these vessels reach 10,000 pounds in a 5-day trip, and Massachusetts studies indicate that oftentimes 60 percent of the catches are egg-bearing females. Fishermen in both Maine and Massachusetts have often expressed concern about the offshore fishery and its effects on the inshore population of lobsters.

There is also concern that the foreign fishing fleets, now operating along the Continental Shelf, will begin fishing for lobsters. Both the U.S.S.R. and France have expressed interest, and the U.S.S.R. is actively engaged in collecting environmental data which would be useful in establishing such a fishery. So little basic information is available on the offshore populations that it is impossible to predict the effects of an increased fishing intensity.

These problems are within the scope of responsibility of the U.S. Bureau of Commercial Fisheries, and their solutions demand the basic biological information which the State research agencies have been unable to provide. The Bureau has been requested to formulate the necessary research program. This program is attached and includes studies suggested by the States of Massachusetts and Maine, as well as the required basic research to cope with problems in Rhode Island, Connecticut, New York, and the offshore fishery. If funded, the program will operate from the U.S. Bureau of Commercial Fisheries Biological Laboratory, Boothbay Harbor, Maine. During the initial years, certain phases of the investigation will possibly be contracted either to private institutions or to the fishery agencies of the States.

### Lobster Research Program

This program is based upon the needs of the New England States engaged in inshore lobster fishing, the problem arising from interstate lobster fisheries, and the questions concerning the offshore lobster fishery. It is a program designed to provide the biological information needed to answer the basic problems of the lobster industry. The overall objective is, in essence, efficient and lasting utilization. Specifically, the program includes the study of the effects of fishing on the offshore and inshore lobster populations and the interrelations of these populations; the influence of biological and environmental factors on the distribution and abundance of lobster populations; and the management of the resource consistent with economic as well as biological demands.

#### PROJECT A. OFFSHORE POPULATIONS

The exploitation of offshore lobster populations and the effects of this fishery on the lobster populations along the coast must be determined to formulate proper management of these fisheries. To obtain the maximum annual catch of lobsters from the offshore populations, it is essential that the rates of recruitment growth, and mortality be known. These data are needed to determine the optimum stock size that can be maintained and that will produce a sustained yield. The fishing intensity required to produce this stock size and yield can then be established.

*Solutions*

(1) Sampling of the fishery will involve the collection of length-weight data, sex ratios, and fecundity data such as number of eggs per seeded female, and the proportion of egg-bearing lobsters by size, etc., in numerous offshore locations. These data will be helpful in providing estimates of growth rates, age or size composition, and relationships of spawners to recruitment.

(2) Catch-effort data in conjunction with tagging studies should provide estimates of total survival, population sizes, fishing and natural mortality rates, and extent and rate of migration.

(3) From the above, the annual yields in weight will be computed for a range of fishing rates for various ages of recruitment.

(4) Special offshore cruises will be undertaken to tag and/or mark lobsters; to determine the size distributions of the populations through sampling with small-mesh otter trawls; to ascertain the mortality rates of prerecruits and to collect specimens for laboratory studies, and to trace movements and migrations. Oceanographic data will be analyzed for possible means of intermixing of offshore and inshore populations through environmental influences. Serological

techniques and other biochemical approaches, as well as morphometric studies, will be undertaken to determine whether inshore and offshore populations are discrete.

PROJECT B. INSHORE POPULATIONS

The state of the inshore lobster fishery appears to be one of heavy exploitation with insufficient data to permit the proper regulatory procedures. An inadequate system of data collection does not allow a careful analysis of the fishery, and funds have not been available to remedy the situation. The advantages and disadvantages of size restrictions (minimum and maximum) are not clearly understood or known. Very little is known of the migration of lobsters, their natural mortality, population sizes, or rates of growth. To obtain the maximum catch of lobsters annually from inshore populations, it is essential that the size restrictions dictate removal of lobsters at an age which is in accord with growth and natural mortality rates. Further, the rate of fishing must be adjusted so that the stocks establish and maintain the level required for maximum sustained yield.

*Solutions*

The research on the inshore lobsters will consist of several short-term studies and a continuing more detailed study attempting to provide estimates of population parameters, sizes, recruitment, etc.

(1) An adequate system of collecting detailed catch-effort data on a monthly basis will be initiated.

(2) Extensive tagging and/or marking will be done in widely separated areas to determine differences in mortality and migration. With suitable catch-effort data available, estimates of population sizes can be made and trends of yield with stock sizes calculated.

(3) Extensive sampling of the fishery will be similar to that mentioned in problem A and will be carried out along the entire coast.

(4) A larval sampling program will be undertaken to establish the source of recruits to given inshore areas and to determine the influence of hydrographic conditions on the distribution of lobsters.

PROJECT C. BASIC BIOLOGY

The solutions to problems confronting the lobster fisheries in the various States demand a thorough understanding of lobster biology. Items such as age and growth rate are essential to the estimates of yield. Natural fluctuations in the abundance and availability of lobster populations occur in both the inshore and offshore fisheries, and it is important to understand the causes of these fluctuations.

*Solutions*

(1) Since no aging technique is now known for lobsters, it is imperative to know the molting rate with age as well as the length increase per molt with age in order to relate size composition with age. Variations in growth rates will be assessed through laboratory experiments with controlled temperature, salinity, food supply, and so forth.

(2) Density levels, cannibalism, and the establishment of territory among lobsters of different ages will be studied to determine the effects on the distribution and abundance of populations. These results will be related to fecundity studies, rates of growth, and natural mortality.

(3) Lobsters will be raised from eggs to study more fully the larval stages and to develop known age laboratory specimens. The influence of various environmental parameters on the mortality of various stages during larval development will be determined.

(4) The tolerance of lobsters to various environmental factors such as temperature and salinity will be studied, as will the influence of disease on the abundance and distribution of lobsters.

*Annual budget for lobster research*

| | |
|---|---|
| Project A. Offshore populations | $125,000 |
| Project B. Inshore populations | 125,000 |
| Project C. Basic biology | 75,000 |
| Total | [1] 325,000 |

[1] Includes contracts with State agencies.

Senator MUNDT. Senators Smith, Saltonstall, and Cotton have asked that Mr. McKernan advise the committee of the situation and your best judgment as to what can and should be done about it.

Mr. MCKERNAN. Senator Mundt, the North American lobster fishery is an important fishery in the United States. We land about 25 to 30 million pounds a year and a value to the fishermen of about $15 million a year.

### DECLINE OF PRODUCTIVITY

The Federal Government and the States have done a great deal of research on this. The fishery does show some signs of decline in its productivity. One of the disturbing things, Senator Mundt, has been the development of interest by both the Soviet Union and France in some recently discovered offshore populations of lobsters.

Now, our scientists discovered these offshore populations and our own fishermen began to fish them. I mean, this area is beyond our territorial limits. We have about 40 vessels that have been landing lobsters. They have been very large, desirable lobsters bringing the best price.

But the problem is, What is the relationship between these offshore and inshore populations? Can we continue to fish these without endangering the large supply inshore. We do not know. They ask us and we just do not know. We certainly want to know what the relationship is, because if there is a relationship between these stocks, we must make certain arrangements.

### ESTABLISHING A CONSERVATION REGIME

Perhaps the International Commission for the Northwest Atlantic Fisheries can adequately establish a conservation regime which would apply to the French or to the Soviets or to anyone else who might come in these offshore waters and fish lobsters, thereby protecting our inshore lobsters.

Senator MUNDT. Do you have treaties that are enforceable to keep other people from fishing these beds if we restrict our fishermen?

Mr. MCKERNAN. No, but we could try to reach a bilateral or a multilateral agreement with these nations that would give us the best protection on these stocks.

Failing some special consideration for these stocks, if they were the brood stock for the inshore area, we would most certainly try to get an agreement with these nations on a conservation program which would limit the total annual landings and lead to some kind of a sharing arrangement.

But until we have scientific knowledge of this, obviously we are not in a position to judge what needs to be done.

Senator MUNDT. Mr. Chairman, in further reference to the lobster research matter, I have here a letter addressed to Senator Cotton by Philip J. Sawyer, associate professor of the Department of Zoology at the University of New Hampshire.

Senator Cotton has requested that this letter be made a part of the record at this point.

Chairman HAYDEN. That will be done.

(The letter referred to follows:)

UNIVERSITY OF NEW HAMPSHIRE,
*Durham, N.H., February 24, 1964.*

Hon. NORRIS COTTON,
*Senate Office Building,*
*Washington, D.C.*

DEAR SENATOR COTTON: I have been asked to write you a letter respectfully requesting you to support an amendment to the budget of the Department of Interior concerned with lobster research. This modification of the original Department of Interior budget will come before a subcommittee of the Appropriations Committee concerned with this area of Federal commitments on February 27, 1964. I am writing you as the executive member of the New Hampshire representation to the Atlantic States Marine Fisheries Commission. This amendment to the Department of Interior budget if granted would provide funds to support an investigation of our lobster fishery. Perhaps a few figures and dollar signs would help you put this request in perspective.

The lobster fishery in the United States has the highest unit value to the fisherman of all the fisheries. He receives $0.55 for every pound he sells. The total fishery has a value of approximately $15 million annually. This makes up about 4 percent of the total landed value of all fish products in the United States, which places it as the seventh most valuable fishery.

In 1961, New Hampshire issued licenses to 51 fishermen, permitting them to set over 75 lobster traps each. Mr. Ralph C. Carpenter II, director of the New Hampshire Fish and Game Department estimates that a real good fisherman can earn about $8,000 annually from his catch. This provides the Portsmouth-Rye-Hampton area with a good many hard-earned dollars each year. I feel this is a typical Yankee industry worth support. In addition to the licenses mentioned above, there were 53 5-trap permits and 129 75-trap or less permits granted. The income to these fishermen is unknown.

Because of its value, the lobster attracts the attention of many fishermen. Most of their fishing pressure is placed upon the inshore fishery—the one in which lobster pots are set. The inshore populations of lobsters are being harvested at just about a maximum level at this time and the demand for lobsters continues to be heavy. To satisfy this demand, an offshore fishery for lobsters has developed. In Massachusetts the landings from this offshore fishery has increased from 1 million pounds to 3 million pounds in the last 3 years. These lobsters are captured with trawls.

The inshore fishermen are protesting to the biologists about this, for they believe that the inshore lobsters are offspring of the offshore populations. They feel that uncontrolled, continued harvest of the large deep-water lobsters will eventually cause the collapse of the shallow-water part of the industry. At present nobody knows whether or not this is true. Biologists have never investigated this situation, but it has become an obvious problem now. Some action should be taken to assure continued yield of this resource.

This leads me back to my original statement. Biologists interested in the problems of the lobster fishery have drawn up investigational procedures. The estimated cost of this work is $325,000. The Bureau of Commercial Fishery would be heavily involved in the offshore work because it takes the larger vessels and gear that they have to do the deeper water work. The States would help considerably with the inshore investigation.

I hope I have stated clearly both the problem and the reasons why I feel it important to aid the industry. This would be an opportunity for politicians and biologists to work together for a common good. I do hope you will give my request your careful consideration.

If you desire more information concerning this problem I would be pleased to try and provide it.

Sincerely yours,

PHILIP J. SAWYER, *Associate Professor.*

### FISH LOSSES IN POTOMAC RIVER AND CHESAPEAKE BAY

Senator MUNDT. I have one other question. I remember reading about a great loss of fish in the lower Potomac, rockfish. I do not know whether they come in your jurisdiction or not. Has anything been done to ascertain the reason for it or to mitigate it in any way?

Mr. McKernan. Yes, Senator. This problem was studied by a group of people and we did cooperate with the State of Maryland laboratory that did the primary work on this. The head of the laboratory generally led this particular investigation. What they found was this: Apparently in the late summer, and especially this last summer, there was not much rainfall. There had not been a great influx of fresh water and the bay became very warm. Of course, the Chesapeake Bay is a very rich bay and the fish populations apparently became subject to disease and there was an epizootic that struck the fish, especially the perch.

EPIZOOTIC

Senator Mundt. Is this a piscatorial way of saying epidemic?

Mr. McKernan. Yes. And this epidemic, if you prefer, did kill tremendous amounts, especially of the perch, but some other species as well. A certain amount of fish kill has occurred in the Chesapeake Bay. My own view is that one of the contributing problems here, of course, is the pollution.

Senator Mundt. I asked about that.

Mr. McKernan. The increasing amount of biological material, that is, material which tends to use up oxygen in its decay, of course, reduces the oxygen and reduces the resistance of the various fish populations in the bay, making them quite susceptible to diseases of various kinds.

I think one of the things that we must do in this area is to find ways of rehabilitating the fresh waters and the bays themselves, because this is perhaps one of the most prolific and best producing inland bays in the world, the Chesapeake Bay itself.

POLLUTION AND OYSTERS

Senator Mundt. Pollution that kills fish probably is conducive to raising big oysters?

Mr. McKernan. No. When there is so much biological material fish are lost, this is not conducive to the growth of any animals. In fact, when it gets to this particular point, oysters tend to close up and to get thin.

Chairman Hayden. Senator Bartlett, do you have some questions?

Senator Bartlett. A few, only.

ALASKA SALMON

Mr. McKernan, the Alaska salmon fishery is the greatest in the world, is it not?

Mr. McKernan. I was referring to salmon in general, in a generic sense.

Senator Bartlett. I was sure of that.

Mr. McKernan. And I am sure the chairman was also.

FISH PROTEIN CONCENTRATE

Senator Bartlett. I just wanted the record completely straight on that point. First, Mr. McKernan, I want to congratulate the Fish and Wildlife Service upon its continuing and persistent efforts to put fish flour in a form that will be acceptable to the Food and Drug Administration.

So far as I am concerned, right now, it is most attractive in appearance and magnificent in its bodybuilding results. I think it should be approved as it is. But since that is not the case, I am glad to learn that you are working so diligently to obtain the blessing of the Food and Drug Administration. We all know what a wonderful source of protein this is and how it could be used especially in those nations where proteins are in short supply.

### North Pacific Research Vessel

Where is this North Pacific research vessel, to which you referred, to be built?

Mr. McKernan. We have not yet advertised for construction bids, Senator Bartlett, so we do not know what yard will be the successful bidder at the present time.

Senator Bartlett. There is no contract yet?

Mr. McKernan. There is no contract yet.

### Operations in American Samoa

Senator Bartlett. Are you operating in American Samoa?

Mr. McKernan. Not directly, Senator Bartlett. But we have carried out research in waters adjacent to American Samoa in cooperation with the government of Samoa.

As you know, the Samoan government operation is coordinated through the Department of Interior, so we are in close contact with their government, and we do attempt to cooperate very closely with them in the development of their fisheries programs.

Senator Bartlett. I asked that question because it was my recollection that Governor Lee testified yesterday that the Fish and Wildlife Service was going to put a vessel down there or do some kind of work.

Mr. McKernan. We have been cooperating with Governor Lee in the development of proposals necessary to enhance the fisheries in American Samoa.

### Technicial Assistance to South American Countries

Senator Bartlett. Are we giving any technical, scientific, or related assistance to Peru, Ecuador, Chile, in aiding them to develop their fisheries?

Mr. McKernan. Indirectly we are, both through the Food and Agriculture Organization of the United Nations and through the Special Fund of UNESCO. We supply considerable amounts of funds in both of these particular areas, and there are projects in Ecuador and Peru under these particular programs. We are not dealing directly with them, but on the other hand, famous American scientists have collaborated with the fisheries experts in these countries in setting up programs, including some people from our own staff and such men as Dr. Milner B. Schaefer, and others from the Scripps Institution of Oceanography.

There is increasing cooperation between these people and the United States in this area.

INTER-AMERICAN TROPICAL TUNA COMMISSION

Ecuador is a member of the Inter-American Tropical Tuna Commission.

Senator BARTLETT. Are Federal funds being allocated to assist in this?

Mr. MCKERNAN. Federal funds are being used through our contributions to the United Nations organizations.

Senator BARTLETT. There are no direct contributions insofar as you know by the State Department or the Interior Department?

Mr. MCKERNAN. No. Interior Department has none. I do not believe there are any AID programs in fisheries at the present time, so I do not believe that the State Department is contributing directly now. I believe they have in the past. In fact, I am quite sure they have in the past.

SEIZURE OF AMERICAN VESSELS

Senator BARTLETT. We have had considerable difficulty with some of the maritime nations in South America, have we not, Mr. McKernan, in respect to their seizure of American fishing vessels far beyond the 3-mile limit?

Mr. MCKERNAN. Yes. The three nations you mentioned, the so-called CEP countries, Chile, Ecuador, and Peru, have claimed a 200-mile jurisdiction over fisheries. So we have had considerable trouble and they have intermittently taken our boats operating in the high seas off their coast. That is, from water we consider to be the high seas.

Senator BARTLETT. They have subjected them to fairly large fines in some cases, have they not?

Mr. MCKERNAN. That is correct. And they have held the boats in port and confiscated the catch. So they have caused considerable economic loss to our tuna industry.

U.S. FISHERY PRODUCTION

Senator BARTLETT. You were discussing with Senator Mundt, awhile ago, how the United States is situated in respect to modern vessels for high sea fishery. Can you just tell us, in terms of fishery production, how the United States is faring vis-a-vis the other principal producers?

Mr. MCKERNAN. Well, we have not been doing too well, I am sorry to say.

We have gone from second place to fifth place in about the last 7 years. Such nations as the U.S.S.R. and Japan have continued to put considerable amounts of their resources into new fishing vessels and into expanding their high seas fishing fleets.

Now what this means is that many countries of the world are now realizing that there are great protein resources in the sea and they are willing to invest in these resources.

Many of these large fishing nations are fishing in practically all oceans of the world, including the Antarctic, Indian Ocean, and the South Atlantic and the tropical Atlantic. You find the Japanese flag in all these areas, and they are expanding their fisheries to a tremendous degree.

PRODUCTION STABILITY

Our fisheries, on the whole, are not expanding, to speak of. We are staying about at a level basis. We in Government, in cooperation with industry and, I might add, with the assistance of a number of people in the Congress of the United States, especially yourself, are doing a great many things to try and stimulate the development of modern U.S. fleets and expand our fisheries.

Senator BARTLETT. Our production, you say, then remains relatively stable while the catches of such nations as the U.S.S.R. and Japan are accelerating at a very fast pace?

Mr. MCKERNAN. Yes. Perhaps the best example of this, Senator Bartlett, would be to point out in the last decade world fish production has doubled, whereas our own fish production has increased in the neighborhood of something like 5 percent.

WORLD FISHING POTENTIAL

Incidentally, scientists estimate, and I generally agree with these estimates, that the sea can probably produce in a general order of 5 to 10 times as much protein in the form of fish and fishlike products as it is doing at the present time.

Senator BARTLETT. Isn't it true, however, that in particular areas there is such serious overfishing that the supply may not only be depleted but exhausted?

Mr. MCKERNAN. Yes; the supply of certain special species—in this regard, conservation programs, programs of management to sustain the optimum yield are necessary. In principle, these programs are somewhat like the programs applied to the land and to herds of cattle and sheep and other domestic animals in our own country. That is, we apply the same kind of biological mathematics to ocean populations as we apply to populations of land animals.

Senator BARTLETT. Everyone knows, Mr. McKernan, that the Fish and Wildlife Service, more particularly the Bureau of Commercial Fisheries, has a large and ever-increasing responsibility, with the advent of these foreign fleets, of managing and conducting enforcement activities in the Bering Sea, in the Gulf of Alaska. We have noted during the last several years the big Soviet and Japanese fleets streaming there.

MANAGEMENT AND ENFORCEMENT PROGRAM

How much money for management and enforcement did you ask for in this budget?

Mr. MCKERNAN. There is no increase in the budget, Senator Bartlett, and at the present time, we are spending about $400,000 for management. This involves the enforcement aspects of all of the eight international fisheries commissions in which we are a participating nation. This enforcement program takes place in the Grand Banks area, in the North Pacific area, and we anticipate enforcement in the tropical Pacific area with tuna and in other places as well, Senator Bartlett.

PROGRAM IN GULF OF ALASKA, AND BERING SEA

Senator BARTLETT. Do you have enough money, in your judgment, Mr. McKernan, in this budget, for the management and enforcement of the Gulf of Alaska and the Bering Sea?

Mr. MCKERNAN. The Gulf of Alaska is a very critical area right at the present time. You may be aware, Senator Bartlett, that we have asked the Coast Guard to put some additional vessels and airplanes in this area because of this very critical matter of joint fisheries for halibut in the Bering Sea.

The United States needs to enforce the regulations in the Bering Sea as we never have before. In other words, it is a new responsibility. The answer is that we are tight on money for enforcement in the Gulf of Alaska and the Bering Sea area.

Senator BARTLETT. How much money could you use effectively in that activity during the coming fiscal year?

Mr. MCKERNAN. I could use an additional $100,000 to good advantage. But this is not in the President's budget this year.

Senator BARTLETT. Will you submit for the record an explanatory statement, perhaps, of why you need this $100,000 and what you would use it for?

Mr. MCKERNAN. Yes, sir; I will be glad to.

(The statement referred to follows:)

MANAGEMENT AND ENFORCEMENT NEEDS

An increase of $100,000 and four additional permanent positions would provide a more adequate Bureau program for the enforcement of international fisheries regulations and the surveillance of foreign fishing activities in the Alaska area.

The Bureau of Commercial Fisheries, the U.S. Coast Guard, and the Bureau of Customs have joint responsibility for enforcing various acts and regulations which implement the several international fishery treaties to which the United States is a party in the North Pacific Ocean off the coast of Alaska. These treaties include: the International Pacific Halibut Convention, the North Pacific Fur Seal Convention, the International North Pacific Fisheries Convention, and the International Whaling Convention. The Bureau's enforcement program objectives are designed to insure observance of the provisions of these treaties, prevent violations of implementing laws and regulations, and provide data on foreign fishing trends and movements for use in connection with provisions of existing treaties and future treaty negotiations.

Developments contributing to the need for additional patrol in the Bering Sea and Gulf of Alaska are (1) special regulations for halibut fishing in Bering Sea, (2) a tremendous increase in Japanese and Russian fishing requiring more effective surveillance to satisfy the concern and interest in these operations by Members of Congress, the officials of the States, and the general public, as well as the needs of the Bureau, (3) Soviet entry into the king crab fishery in the Kodiak area with resultant gear conflicts with U.S. king crab fishermen, (4) violations of territorial waters by foreign vessels, and (5) questionable practices in the taking of whales by foreign vessels.

In view of these developments, each year, beginning in 1962, the Coast Guard has increased its aerial and sea patrols in the Bering Sea and Gulf of Alaska. The Bureau's contribution to this cooperative effort with the Coast Guard involves joint planning; providing qualified fishery management agents to accompany fishery surface patrol units and most of the low-level aircraft patrols; and the conduct of a limited sea patrol with a Bureau vessel.

The Bureau has already taxed its limited facilities to the fullest extent possible. An increase of $100,000 will be used to renovate the Bureau patrol vessel *John R. Manning* to make it suitable for year-round operations in the hazardous Alaskan waters; for increased costs involved in operating the vessel on a year-round basis instead of at the current 5-month level; for the salaries of

two additional fishery management agents needed to provide enforcement and surveillance specialists aboard all Coast Guard fishery patrol vessels in the light of increased patrol by the Coast Guard; and to employ two additional clerks to compile and process the increased data resulting from intensified patrolling operations.

The Bureau vessel, used to supplement the patrol operations conducted by the Coast Guard, is needed to observe foreign fishing operations at close range and over longer continuous periods of time than is feasible or economical with Coast Guard ships of greater size, with larger crews and much larger operating costs. Close range observation will permit identification of species and will provide information regarding the compliance of foreign fishermen with international treaty obligations.

### Shellfish Explorations in Gulf of Alaska

Senator Bartlett. I remember that you asked at one time for an appropriation which may be in this budget, of an item of $70,000 for shellfish explorations in the Gulf of Alaska. Is that a budgeted item?

Mr. McKernan. Yes, Senator Bartlett.

Senator Bartlett. Was it the last year?

Mr. McKernan. If my memory serves me correctly, Senator Bartlett, this committee considered adding $140,000 to our budget last year, but it was not approved.

Senator Bartlett. And you are asking now for $70,000?

Mr. McKernan. We are now asking for $70,000 in our budget. The additional $70,000, of the $140,000 which you mention, could be utilized to good advantage.

Senator Bartlett. Will you be good enough, with the Chairman's permission, to place in the record a statement explaining the need for this $70,000?

Mr. McKernan. Yes, sir.

(The statement referred to follows:)

#### KING CRAB AND SHRIMP

Only work related to king crab and shrimp, could be undertaken to develop localized small boat fisheries in Alaska with the modest amount in the Bureau's budget request for fiscal year 1965. The program proposed herein financed with an additional $70,000, for a total of $140,000, and three additional permanent positions would be undertaken with a wide variety of gear especially adapted for small fishing vessels with crews of only one or two men. This program would be designed to permit small boat fishermen to fish all resources available when salmon are not running. It will lessen the extremely unhealthy dependency of the Alaskan fishermen upon single highly seasonal runs of fish. The gear used would include gulf style shrimp trawls, small beam trawls, scallop dredges, king crab pots, and shrimp and octopus traps. Every effort would be made to develop fisheries which would require only the least expensive gear in order for small boat fishermen to outfit for new fisheries at minimum cost.

A limited amount of previous exploratory work has indicated that there may be a good potential for large size shrimp which are available only to traps. Adequate delineation and commercial development of these and other resources depends on the use of small boats, which can be easily maneuvered and the gear set in confined areas. The octopus potential is largely unknown and development of this fishery would lessen the dependence of Alaska halibut fishermen on Japan as a source of supply for this important bait, millions of pounds of which are imported annually.

All exploratory work would be conducted with a chartered vessel. Careful records of catches would be maintained and widely publicized.

Test landings, as a result of intensive production-type fishing efforts, would be an important part of this program and would be carried out in cooperation with the Bureau's technologists. Demonstration cruises would be under-

taken to acquaint local fishermen with types of gear and fishing techniques entirely new to them.

Development of local fisheries, especially during the off season for salmon, would be of tremendous benefit to the small boat fishermen as well as to rather isolated communities where large shoreside facilities are unavailable.

Alaska is on the verge of a continuing influx of new pioneers, and the development of fisheries requiring low volume, high valued products, harvested with a minimum amount of labor and investment, would be a tremendous aid in establishing a firm economy of which new residents, as well as currently unemployed residents, could readily become a part.

KETCHIKAN, ALASKA, LABORATORY PROGRAMS

Senator BARTLETT. Now are you asking for any money for the Ketchikan Laboratory?

Mr. MCKERNAN. No, Senator Bartlett. There is not any increase in the budget for the Ketchikan Laboratory. This is a technological laboratory of the Bureau.

Senator BARTLETT. Again, relying upon a memory that may be deficient, I seem to recall that last year the Senate committee added some money to the bill for that Laboratory and that it was deleted in conference. Does that coincide with your recollection?

Mr. MCKERNAN. Yes, Senator Bartlett, $75,000 was added last year and that was disallowed in conference.

Senator BARTLETT. And that is not in the budget now?

Mr. MCKERNAN. No.

Senator BARTLETT. Do you still think that is an essential item?

Mr. MCKERNAN. Yes; I think it is an important item.

Senator BARTLETT. Will you again place in the record your reasons for so stating?

Mr. MCKERNAN. Yes, Senator Bartlett.

(The information referred to follows:)

TECHNOLOGICAL RESEARCH ON ALASKAN FISHERIES

It is important that an increase of $75,000 and two permanent positions be made available for research on utilization and quality improvement of Alaskan shellfish in fiscal year 1965. The Alaskan shellfish industry is now faced with increasing foreign competition and with product quality problems that threaten the existence of its shellfish products in the marketplace. This program will be closely coordinated with our shellfish exploratory fishing program and both will initiate research that is essential to the future livelihood of this growing industry.

The eastern Pacific is yielding shellfish of significant economic importance to the Alaskan fishing industry. In fact, since 1955, the landings of king crab have risen from under 10 million pounds to approximately 75 million pounds. During this same period, a new shrimp fishery was introduced and it now produces over 17 million pounds of product annually.

This almost spectacular growth has brought to light some serious technological problems that serve as a deterrent to successful and profitable marketing of Alaskan shellfish. Although king crab, shrimp, tanner crab, and other shellfish caught in Alaskan waters are of high nutritive value, they are nevertheless quite perishable and in fact undergo quality changes not found in other seafoods. Discoloration of the meat of king crab and tanner crab is a major problem that must be overcome. Also freezing of these species as well as of shirmp causes excessive drip, or loss of free fluids, after thawing. The final product becomes soft and mushy and loses its firm texture and desirable taste.

In addition to these quality problems, which threaten the acceptability of Alaskan shellfish products in the marketplace, the industry is faced with rising production costs. Seasonal fluctuations in supply, the lack of satisfactory long-term storage methods, and the absence of mechanized processing tech-

niques all contribute to the seriousness of this problem. Further cause for concern is the increasing competition from Russian and Japanese fishermen employing modern factory vessels to harvest and process shellfish in waters close to our Alaskan shores.

With the $75,000, a new program on shellfish processing and utilization would be initiated at the Bureau's technological laboratory, Ketchikan, Alaska. These investigations would (1) study the physical changes that occur in these species during freezing, frozen storage, and thawing and develop methods, i.e., chemical inhibitors or new processes, for minimizing quality loss; (2) develop new products to permit production of Alaskan shellfish in different and attractive forms; and (3) introduce engineering and processing procedures to increase production output and trim rising operating costs. Methods of mechanizing the picking and packing of crabmeat are particularly important here.

Senator BARTLETT. I have no further questions, Mr. Chairman.

Chairman HAYDEN. Senator Young?

Senator YOUNG. No; I have no questions.

Chairman HAYDEN. Thank you.

## BUREAU OF SPORT FISHERIES AND WILDLIFE

## STATEMENTS OF DANIEL H. JANZEN, DIRECTOR; ABRAM V. TUNISON, ASSOCIATE DIRECTOR; LANSING A. PARKER, ASSOCIATE DIRECTOR; RAYMOND E. JOHNSON, ASSISTANT DIRECTOR, SPORT FISHERIES; NOBLE E. BUELL, ASSISTANT DIRECTOR, WILDLIFE; JAMES T. McBROOM, ASSISTANT DIRECTOR, TECHNICAL SERVICES; WESLEY E. CORBIN, ASSISTANT DIRECTOR, ADMINISTRATION; AND RAYMOND E. PODOLAK, CHIEF, DIVISION OF BUDGET AND FINANCE

### 1965 BUDGET ESTIMATE

Chairman HAYDEN. The budget estimate for fiscal year 1965 for "Management and investigations of resources, Bureau of Sport Fisheries and Wildlife," is $34,419,000, an increase of $3,829,100 over the amount appropriated for fiscal year 1964. The justifications for this request will be placed in the record at this point.

(The justification statement referred to follows:)

### HIGHLIGHT STATEMENT

The purpose and long-range objectives of the program for management and investigations of resources are the perpetuation, use, and enjoyment by the people of the sport fish and wildlife resources of the Nation. These objectives are attained through production and distribution of hatchery fish; the maintenance of a nationwide system of wildlife refuges; the regulation of migratory bird hunting; and the management of fish and wildlife populations by scientific research and methods, all conducted in cooperation with the States and private organizations.

In 1964, appropriation increases provided for operation of new stations and facilities and expansion of programs in certain areas to better meet Bureau responsibilities. Funds were provided for operation of new facilities at 36 fish hatcheries and planning for the National Fisheries Center and Aquarium. Fishery management services were expanded by five additional cooperative fishery units and two fishery management projects. Fishery research was expanded in the fields of pathology, husbandry methods, reservoir, marine, genetics and pesticides, and reservoir research in the Missouri River Basin. Additional funds were provided to operate new refuges, and to improve maintenance at all refuges. The enforcement and migratory game bird surveys program was expanded. Pro-

vision was made for premium pay of game management agents. Wildlife research was expanded in the areas of waterfowl management, control methods, diseases-parasites, and pesticides. The river basin studies program received additional funds for inspection of drainage applications under the wetlands preservation program.

The 1965 estimates include increases for operation of new facilities at fish hatcheries, wildlife refuges, and fishery research and wildlife research laboratories; a more adequate program of management of refuges; replacement of aircraft used in law-enforcement activities and an acceleration of pesticides research.

The estimates for this appropriation include a net increase of 62 authorized permanent positions. This increase is offset by reductions in permanent positions in other appropriations. There is no increase over 1964 in total authorized permanent positions of the Bureau.

There is no substantive language change.

*Management and investigations of resources*

| | |
|---|---|
| Appropriation, 1963 | $27,729,500 |
| Comparative transfer from "Resources management, Bureau of Indian Affairs" | +92,556 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration | −34,616 |
| Total available, 1963 | 27,787,440 |
| Appropriation, 1964 | 30,589,900 |
| Comparative transfer to "Operating expenses, Public Buildings Service," General Services Administration | −30,173 |
| Total available, 1964 | 30,559,727 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | |
|---|---|
| Management of fishery resources: | |
| To provide for increased pay costs for fiscal year 1964 positions | +$66,000 |
| To provide for operations of new hatcheries and other new facilities | +325,000 |
| To provide for wage board pay increases | +101,000 |
| Total | +492,000 |
| Extension and training: To provide for increased pay costs for fiscal year 1964 positions | +14,000 |
| Fishery research: | |
| To provide for increased pay costs for fiscal year 1964 positions | +29,000 |
| To provide for operation of new facilities | +87,000 |
| To expand research on effects of pesticides | +680,000 |
| Total | +796,000 |
| Administration of wildlife resources: | |
| To provide for increased pay costs for fiscal year 1964 positions | +140,400 |
| To provide management of new refuges | +512,119 |
| To provide more adequate management at existing refuges | +229,173 |
| To provide for employees' compensation payments | +25,881 |
| To provide for replacement and overhaul of aircraft to meet FAA standards | +86,200 |
| To provide for wage board pay increases | +81,000 |
| Total | +1,074,773 |

*Management and investigations of resources*—Continued

| | |
|---|---|
| Wildlife research: | |
| To provide for increased pay costs for fiscal year 1964 positions | +58,500 |
| To provide for operation of new facilities | +155,000 |
| To provide for acceleration of pesticide wildlife studies | +1,250,000 |
| Total | +1,463,500 |
| River basin studies: To provide for increased pay costs for fiscal year 1964 positions | +19,000 |
| Net increase, 1965 | 3,859,273 |
| Budget estimate, 1965 | 34,419,000 |

*Analysis by activities (direct appropriation)*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 | | |
|---|---|---|---|---|
| | | Total appropriation | Transfers [1] | Amount available |
| 1. Management of fishery resources | $6,277,866 | $6,816,000 | | $6,816,000 |
| 2. Extension and training | 646,887 | 900,000 | −$5,000 | 895,000 |
| 3. Fishery research | 1,883,572 | 2,057,000 | −4,000 | 2,053,000 |
| 4. Administration of wildlife resources | 11,470,766 | 12,314,400 | −10,173 | 12,304,227 |
| 5. Control of predatory animals and injurious rodents | 2,647,918 | 2,713,000 | −3,000 | 2,710,000 |
| 6. Wildlife research | 2,778,715 | 3,761,500 | −3,000 | 3,758,500 |
| 7. Soil and moisture conservation | 694,126 | 705,000 | | 705,000 |
| 8. River basin studies | 1,177,472 | 1,323,000 | −5,000 | 1,318,000 |
| Unobligated balance lapsing | 210,118 | | | |
| Total | 27,787,440 | 30,589,900 | −30,173 | 30,559,727 |

[1] Represents transfers to General Services Administration.

*Analysis by activities (direct appropriation)*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. Management of fishery resources | $6,277,866 | $6,816,000 | $7,308,000 | +$492,000 | +$66,000 | +$426,000 |
| 2. Extension and training | 646,887 | 895,000 | 909,000 | +14,000 | +14,000 | |
| 3. Fishery research | 1,883,572 | 2,053,000 | 2,849,000 | +796,000 | +29,000 | +767,000 |
| 4. Administration of wildlife resources | 11,470,766 | 12,304,227 | 13,379,000 | +1,074,773 | +140,400 | +934,373 |
| 5. Control of predatory animals and injurious rodents | 2,647,918 | 2,710,000 | 2,710,000 | | | |
| 6. Wildlife research | 2,778,715 | 3,758,500 | 5,222,000 | +1,463,500 | +58,500 | +1,405,000 |
| 7. Soil and moisture conservation | 694,126 | 705,000 | 705,000 | | | |
| 8. River basin studies | 1,177,472 | 1,318,000 | 1,337,000 | +19,000 | +19,000 | |
| Unobligated balance lapsing | 210,118 | | | | | |
| Total | 27,787,440 | 30,559,727 | 34,419,000 | +3,859,273 | +326,900 | +3,532,373 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*Analysis by activities (total funds)*

| Activity and appropriation | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| 1. Management of fishery resources: Management and investigations of resources | $6,277,866 | $6,816,000 | $7,308,000 | +$492,000 |
| 2. Extension and training: Management and investigations of resources | 646,887 | 895,000 | 909,000 | +14,000 |
| 3. Fishery research: | | | | |
| Management and investigations of resources | 1,883,572 | 2,053,000 | 2,849,000 | +796,000 |
| Federal aid in fish restoration and management | 49,374 | 23,500 | | −23,500 |
| Subtotal | 1,932,946 | 2,076,500 | 2,849,000 | +772,500 |
| 4. Administration of wildlife resources: | | | | |
| Management and investigations of resources | 11,470,766 | 12,304,227 | 13,379,000 | +1,074,773 |
| Expenses for sales, etc., in refuges, Migratory Bird Conservation Act | 129,222 | 156,000 | 156,000 | |
| Management of national wildlife refuges | 1,348,362 | 1,873,300 | 1,841,200 | −32,100 |
| Subtotal | 12,948,350 | 14,333,527 | 15,376,200 | +1,042,673 |
| 5. Control of predatory animals and injurious rodents: Management and investigations of resources | 2,647,918 | 2,710,000 | 2,710,000 | |
| 6. Wildlife research: | | | | |
| Management and investigations of research | 2,778,715 | 3,758,500 | 5,222,000 | +1,463,500 |
| Federal aid in wildlife restoration | 49,523 | 280,000 | 279,400 | −600 |
| Subtotal | 2,828,238 | 4,038,500 | 5,501,400 | +1,462,900 |
| 7. Soil and moisture conservation: Management and investigations of resources | 694,126 | 705,000 | 705,000 | |
| 8. River basin studies: | | | | |
| Management and investigations of resources | 1,177,472 | 1,318,000 | 1,337,000 | +19,000 |
| Federal aid in wildlife restoration | 30,000 | 30,000 | | −30,000 |
| Construction, General, Corps of Engineers, Civil | 587,092 | 549,528 | 480,000 | −69,528 |
| General Investigations, Corps of Engineers, Civil | 90,610 | 205,049 | 201,600 | −3,449 |
| Construction and Rehabilitation, Bureau of Reclamation | 263,655 | 315,588 | 320,600 | +5,012 |
| General Investigations, Bureau of Reclamation | 285,165 | 346,959 | 355,200 | +8,241 |
| Subtotal | 2,433,994 | 2,765,124 | 2,694,400 | −70,724 |
| Total, direct appropriation | 27,577,322 | 30,559,727 | 34,419,000 | +3,859,273 |
| Other funds | 2,833,003 | 3,779,924 | 3,634,000 | −145,924 |
| Grand total | 30,410,325 | 34,339,651 | 38,053,000 | +3,713,349 |

*1. Management of fishery resources*

| Subactivity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Fish hatcheries | $6,260,566 | $6,798,000 | $7,290,000 | +$492,000 | +$66,000 | +$426,000 |
| (b) Enforcement of black bass law | 17,300 | 18,000 | 18,000 | | | |
| Total | 6,277,866 | 6,816,000 | 7,308,000 | +492,000 | +66,000 | +426,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

(A) FISH HATCHERIES

The estimate for 1965 is $7,290,000 an increase of $492,000 over 1964. The increase includes $66,000 for increased pay costs, $325,000 and 12 positions for operation of new hatcheries and new facilities constructed at existing hatcheries, and $101,000 for increases in compensation of unclassified wage board positions.

*Need for increase*

(a) *Operation of new hatcheries and new facilities, $325,000.*—Funds for construction of new hatcheries and expansion or improvement of rearing facilities at existing hatcheries have been included in appropriations for past years. Thirty-five stations are included in this construction program. They are located in areas where the need for fish for stocking purposes has far exceeded production. The construction program will greatly expand facilities for the propagation of fish at these hatcheries. The estimate will permit use of some of the new facilities at 34 of these hatcheries, and will be utilized for salaries, fishfood and other operational expenses, and costs of distributing the increased production of fish. The estimate for the remaining new Wytheville, Va., hatchery is for personnel and materials needed to prepare it for operation. No fish production is expected at this hatchery in 1965. The increase is broken down by hatcheries as follows:

*Operation of new hatcheries and new facilities constructed at existing hatcheries*

| Hatchery | Available 1964 | | Increase | | Estimate 1965 | | When operating at 100 percent of capacity | |
|---|---|---|---|---|---|---|---|---|
| | Operation costs | Estimated production (pounds) | Operation costs | Estimated production (pounds) | Operation costs | Production (pounds) | Operation costs | Estimated production (pounds) |
| Carbon Hill, Ala. | $26,350 | 4,000 | $4,000 | 2,000 | $30,350 | 6,000 | $30,350 | 6,000 |
| Marion, Ala. | 81,700 | 10,000 | 10,000 | 2,000 | 91,700 | 12,000 | 114,700 | 17,600 |
| Alchesay, Ariz. | 103,400 | 90,000 | 10,000 | 10,000 | 113,400 | 100,000 | 152,000 | 150,000 |
| Greers Ferry Dam, Ark. | 30,000 | | 20,000 | 10,000 | 50,000 | 10,000 | 138,000 | 150,000 |
| Mammoth Spring, Ark. | 39,000 | 6,000 | 4,000 | 800 | 43,000 | 6,800 | 47,000 | 7,600 |
| Norfork, Ark. | 180,700 | 250,000 | 13,200 | 25,000 | 193,900 | 275,000 | 253,000 | 400,000 |
| Coleman, Calif. | 222,050 | 270,000 | 10,000 | 13,000 | 232,050 | 283,000 | 272,050 | 350,000 |
| Leadville, Colo. | 84,000 | 115,000 | 5,000 | 7,200 | 89,000 | 122,200 | 103,000 | 145,000 |
| Chattahoochee Forest, Ga. | 81,000 | 70,000 | 5,000 | 5,000 | 86,000 | 75,000 | 113,600 | 105,000 |
| Cohutta, Ga. | 29,600 | 5,000 | 3,000 | 900 | 32,600 | 5,900 | 36,500 | 7,500 |
| Warm Springs, Ga. | 27,500 | 1,000 | 2,200 | 200 | 29,700 | 1,200 | 35,000 | 2,000 |
| Hagerman, Idaho | 136,400 | 250,000 | 10,000 | 20,000 | 146,400 | 270,000 | 180,000 | 340,000 |
| Craig Brook, Maine | 50,300 | 28,000 | 10,000 | 7,000 | 60,300 | 35,000 | 80,300 | 50,000 |
| Hiawatha Forest, Mich. | 21,500 | 14,000 | 10,000 | 7,000 | 31,500 | 21,000 | 42,500 | 35,000 |
| Jordan River, Mich. | 56,000 | 30,000 | 41,000 | 30,000 | 97,000 | 60,000 | 124,000 | 100,000 |
| Lyman, Miss. | 41,050 | 7,000 | 2,000 | 500 | 43,050 | 7,500 | 52,000 | 12,000 |
| Meridian, Miss. | 27,500 | 3,000 | 6,100 | 1,000 | 33,600 | 4,000 | 40,600 | 5,500 |
| Neosho, Mo. | 41,000 | 30,000 | 10,000 | 10,000 | 51,000 | 40,000 | 62,000 | 55,000 |
| Creston, Mont. | 54,000 | 65,000 | 10,000 | 13,000 | 64,000 | 78,000 | 84,000 | 110,000 |
| Ennis, Mont. | 131,000 | 190,000 | 10,000 | 15,000 | 141,000 | 205,000 | 168,000 | 250,000 |
| Garrison Dam, N. Dak. | 61,000 | 12,000 | 5,000 | 1,500 | 66,000 | 13,500 | 81,000 | 20,000 |
| Tishomingo, Okla. | 58,000 | 9,000 | 15,000 | 3,000 | 73,000 | 12,000 | 98,000 | 18,000 |
| Lamar (including Tylersville), Pa. | 103,650 | 110,000 | 20,000 | 22,000 | 123,650 | 132,000 | 190,650 | 210,000 |
| Cheraw, S.C. | 24,650 | 2,500 | 2,000 | 400 | 26,650 | 2,900 | 30,650 | 4,000 |
| Orangeburg and Orangeburg County, S.C. | 41,600 | 5,000 | 7,000 | 1,000 | 48,600 | 6,000 | 71,600 | 10,000 |
| Gavins Point, S. Dak. | 76,050 | 9,000 | 5,000 | 1,000 | 81,050 | 10,000 | 90,050 | 12,000 |
| Dale Hollow Dam, Tenn. | 19,300 | | 25,000 | 10,000 | 44,300 | 10,000 | 126,000 | 100,000 |
| Erwin, Tenn. | 56,700 | 45,000 | 5,000 | 5,000 | 61,700 | 50,000 | 61,700 | 50,000 |
| Harrison Lake, Va. | 30,900 | 3,000 | 2,000 | 500 | 32,900 | 3,500 | 36,900 | 4,600 |
| Wytheville (new), Va. | 10,000 | | 17,000 | | 27,000 | | 110,000 | 100,000 |
| Quilcene, Wash. | 64,900 | 63,000 | 15,500 | 16,000 | 80,400 | 79,000 | 100,800 | 103,000 |
| Leetown, W. Va. | 91,850 | 60,000 | 6,000 | 6,000 | 97,850 | 66,000 | 102,850 | 75,000 |
| White Sulphur Springs, W. Va. | 39,450 | 40,000 | 5,000 | 6,000 | 44,450 | 46,000 | 44,450 | 46,000 |
| Total | 2,142,100 | 1,796,500 | 325,000 | 252,000 | 2,467,100 | 2,048,500 | 3,273,250 | 3,050,800 |

NOTE.—All cost figures exclude major maintenance and equipment items.

(*b*) *Wage board increases, $101,000.*—Employees occupying unclassified positions in the trades, crafts, or occupations are compensated at hourly rates of pay fixed and adjusted from time to time to correspond with prevailing rates in the local recruiting areas, through wage rate surveys and wage board action. Unlike classified positions where salary increases are offset by normal turnover, with replacements usually starting at the base salary for the grade, replacement employees in the unclassified group must be recruited and hired at the currently approved rate, with the result that there is no salary saving. The estimate of $101,000 will partially cover the increased cost of these positions.

The total increase of $492,000 is broken down by functions as follows:

| Functions | Available, 1964 | Increase, 1965 | Estimate, 1965 |
|---|---|---|---|
| Production | $3,501,000 | $428,800 | $3,929,800 |
| Maintenance | 1,954,300 | 57,700 | 2,012,000 |
| Recreation | 295,500 | 3,300 | 298,800 |
| Training | 197,000 | 2,200 | 199,200 |
| Supervision | 850,200 | ---------- | 850,200 |
| Total | 6,798,000 | 492,000 | 7,290,000 |

*Plan of work*

The $7,290,000 estimate is for costs of operation and maintenance of hatcheries and distribution of fish produced, operation of the existing aquarium, and planning for the new National Fisheries Center and Aquarium in Washington, D.C. The Bureau works in connection with all States in the distribution of hatchery-reared fish to insure that stocking will conform with State management plans and to avoid duplication of effort.

(B) ENFORCEMENT OF BLACK BASS LAW

The estimate of $18,000 and two permanent positions is the same as last year. Pay costs are being absorbed.

*Plan of work*

The estimate of $18,000 is used for enforcement of the black bass law of 1926, as amended (16 U.S.C. 851–856). This law prohibits interstate traffic in black bass and all other fishes taken contrary to the laws of the State in which taken.

*2. Extension and training*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Extension and training | $646,887 | $895,000 | $909,000 | +$14,000 | +$14,000 | ---------- |

[1] To provide for increased pay costs for fiscal year 1964 positions.

The estimate of $909,000 is an increase of $14,000 over 1964. There is no increase in permanent positions.

*Need for increase*

The increase of $14,000 is needed for increased pay costs.

*Plan of work*

(*a*) *Technical assistance in sport fishery management.*—The estimate of $527,000 will provide technical guidance for approximately 250 federally owned areas and 45 Indian reservations. Waters in these locations are among the finest in the Nation and are expected to support an increasing load of sport fishing. There is a positive Federal responsibility for their management, since State jurisdiction does not extend to many of the national parks, most Indian reserva-

tions, certain of the Department of Defense areas, and is limited on certain of the national wildlife refuges. On many areas, Federal and State agencies cooperate in the management of sport fishery resources. The Bureau has working agreements with the Department of Defense, the National Park Service, the Forest Service, and the Bureau of Indian Affairs. In addition, it has field level agreements with 18 of the Indian tribes.

Giving technical assistance to the Indian tribes has resulted in greatly increased recreational opportunities to visitors of the reservations and has added to the income of the tribes through employment of its members as guides and operators of concessions, and through development of physical facilities such as boat docks, parking areas, campgrounds and trails for fishermen, and dams to impound new water areas. Nearly 400,000 man-days of fishing were provided in 1962. The success achieved at the Fort Apache Reservation in Arizona where sport fishing is credited with generating 75 percent of an income of $860,000 in 1962, has led other tribes to ask for assistance in conducting similar programs. Fish from the Federal hatcheries are used to maintain the fishing, and technical guidance assures their being stocked effectively on the reservations.

More than 100 Department of Defense areas depend upon Bureau biologists for technical guidance in the development and maintenance of recreational fishing. About half of these installations completed cooperative plans for fish and wildlife management and 85 percent of these call for technical assistance from the Bureau. During fiscal year 1964 additional plans, which include an inventory of fish and wildlife resources, are being developed in cooperation with State conservation agencies and defense establishments, as called for by the act of September 15, 1960 (16 U.S.C. 670a–e).

Several activities of national significance will be carried on in cooperation with the State fish and game agencies. These include fishery programs of the Upper Mississippi River Conservation Committee and the Colorado River storage project.

Fishery management services to be provided the public include reports, circulars, and correspondence related to sport fishery resources. Several thousand letters will be answered and information will be furnished the public in a variety of forms. Fishery circulars on management subjects, such as management of ponds, use of chemicals in fish control, improved stocking procedures, and habitat improvements are planned for production in 1965. Public interest in outdoor recreation is increasing and leads to many requests to the Bureau for information on sport fishery subjects.

(*b*) *Better fishing from hatchery fish.*—The estimate of $22,000 will be applied toward a more effective use of hatchery fish. More than 100 national fish hatcheries are providing fish for stocking public and private waters of this country. Although a portion of the total hatchery production is allotted to the States for stocking under cooperative agreements, the Bureau maintains an interest in the contribution which all of its fish make to the betterment of sport fishing. Within the funds specified, limited guidance will be provided in the formation of stocking plans, determination of the need for hatchery fish and assistance in problems of fish distribution and selection of broodstocks. The results of stocking will be evaluated in terms of sport fishing and fish survival. Improved stocking plans will make for better sport fishing and increase the effectiveness of the hatchery operation.

(*c*) *Cooperative fishery units.*—The estimate of $360,000 will maintain the cooperative fishery unit program at the 1964 level. Each cooperative fishery unit functions under an agreement involving the Bureau, a university, and usually, the fish and game department of the State where the unit is located. The program emphasizes the training of fishery scientists for employment by State and Federal agencies and at the same time, the performance of beneficial fishery research and management work. There has been a continuing shortage of fishery biologists which these training programs seek to alleviate. The Federal Government is the largest single employer in the field and it has a responsibility to contribute to the training of these scientists. The ratio of funds is approximately half State to half Federal. The units provide opportunity for seasonal employment of students who are seeking careers in fisheries. Surveys of fishery resources on large Federal holdings, development of new management techniques, studies of fish behavior, life histories and development of recreational fishing in new impoundments are subjects receiving attention by unit staff members and graduate students under their supervision. Twelve units are presently in operation.

The estimate for 1965 will meet program goals, to the following extent:

(*a*) *Technical assistance in sport fishery management.*—33 percent of presently known requirements. Cooperative work with the Indian tribes, 60 percent (additional tribes are seeking help); with the national wildlife refuges, 20 percent; with the national parks, 10 percent; with the Department of Defense, 30 percent; and with the agricultural agencies, 5 percent.

(*b*) *Better fishing from hatchery fish.*—Guidance in the stocking of hatchery fish will be conducted at about 10 percent of the program goals.

(*c*) *Cooperative fishery units.*—The 12 units, now established, will be operated in 1965. These represent 66 percent of the program goal.

*Fishery management services provided to Federal areas and Indian reservations*

| | Actual, calendar year 1962 | Scheduled, calendar year 1963 | Estimate, calendar year 1964 |
|---|---|---|---|
| Areas receiving management assistance | 277 | 290 | 295 |
| Federal areas | 239 | 248 | 250 |
| Indian reservations | 38 | 42 | 45 |
| Acres of water under management assistance | 550,000 | 600,000 | 610,000 |
| On Federal areas | 420,000 | 460,000 | 470,000 |
| On Indian reservations | 130,000 | 140,000 | 140,000 |
| Reports submitted | 266 | 300 | 310 |
| For Federal areas | 232 | 250 | 260 |
| For Indian reservations | 34 | 50 | 50 |
| Man-days of fishing provided | 2,926,000 | 3,400,000 | 3,600,000 |
| On Federal areas | 2,530,000 | 3,000,000 | 3,150,000 |
| On Indian reservations | 396,000 | 400,000 | 450,000 |

Through increased efficiency it is expected to increase the level of the program by the continued standardization of reports to be submitted. The establishment of the 12 new cooperative fishery units as authorized by Congress has been accomplished without adding additional supervisory or administrative positions. Close cooperation with other Federal and State agencies in making surveys and in the exchange of data gathered is also saving man-hours of labor which can be directed to filling additional requests for assistance.

*3. Fishery research*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Fishery research | $1,883,572 | $2,053,000 | $2,849,000 | $796,000 | $29,000 | $767,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

The estimate of $2,849,000 is an increase of $796,000 over 1964. The increase includes $29,000 for pay act costs and $767,000 and 16 permanent positions for expansion of the program.

*Need for increase*

An increase of $29,000 is needed for pay act costs and $767,000 and 16 permanent positions are needed as follows:

*Fish-pesticide relationships.*—$680,000 and 13 permanent positions are needed for accelerated studies of fish-pesticide relationships and for operational pro-

gram surveillance. The increase will permit expansion and improvement of existing experimental facilities and recruitment of additional professional and supporting staff to investigate the following promising areas: the detoxication of pesticidal chemicals in water by micro-organisms as a means of rehabilitation of treated aquatic habitat; preliminary screening of new pesticide chemicals to determine their effect on fish and other aquatic organisms under prescribed, controlled conditions; the physiology of translocation, metabolism, and elimination of ingested or absorbed pesticide chemicals at acute and chornic levels; and the relation of water qualities on chemical activity and toxicity. Histopathological examination of experimental tissues and needed chemical residue analyses will be done by contract.

Large areas of forested and agricultural land have been and will be treated with pesticides in tremendous quantity and great variety of formulation and method. The direct and indirect effects of these operations upon fish and wildlife are unknown and cannot be predicted even roughly, on the basis of present knowledge or limited experiments. The increase will initiate a cooperative program of field surveillance of major operational pesticide applications, designed to record consequences to fish and wildlife and to forestall serious detriment to these resources through development of safer pest control practices. Residue analysis of field specimens will be accomplished by contract.

*Genetics and selective breeding.*—$50,000 and two permanent positions will place the Fish Genetics Laboratory on an operating basis, provide full-year salaries for personnel employed in fiscal year 1964 and permit a first-stage selection of brood stock and progeny in available rehabilitated facilities, in anticipation of completion of the planned 360-unit fish holding structure.

*Husbandry methods.*—$37,000 and one permanent position for fish husbandry research laboratories will provide for required additional maintenance, utility, and operating costs following from this year's completion of expanded facilities at the Southeastern Fish Cultural Laboratory, Marion, Ala., and the Convict Creek Experiment Station, Bishop, Calif.

*4. Administration of wildlife resources*

| Subactivity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Wildlife refuges | $8,518,000 | $9,142,427 | $10,091,000 | $948,573 | $100,400 | $848,173 |
| (b) Management and enforcement of migratory bird and Lacey acts | 2,952,766 | 3,161,800 | 3,288,000 | 126,200 | 40,000 | 86,200 |
| Total | 11,470,766 | 12,304,227 | 13,379,000 | 1,074,773 | 140,400 | 934,373 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

(A) WILDLIFE REFUGES

The estimate of $10,091,000 is an increase of $948,573 and 18 permanent positions over 1964, of which $100,400 is for increased pay costs and $848,173 and 18 permanent positions are for other increased costs and expansion of the program.

*Need for increase*

The increase of $848,173 and 18 permanent positions is needed for the following purposes:

(1) $81,000 for wage board increases.

(2) $25,881 for an increase in employees' compensation payments.

(3) $229,173 and seven permanent positions for increased protection of refuge areas and better handling of visitors.

(4) $512,119 and 11 permanent positions for management of 9 new refuges, and waterfowl production areas in the State of Nebraska, as follows:

| State | Refuge | Positions | Estimate, 1965 |
|---|---|---|---|
| Alaska | Izembek | 1 | $50,000 |
| Colorado | Alamosa | 1 | 60,000 |
| Delaware | Prime Hook | 1 | 35,000 |
| Georgia | Harris Neck | 1 | 54,000 |
| Maryland | Eastern Neck | 1 | 56,119 |
| Nebraska | Waterfowl production areas | 2 | 30,000 |
| Nevada | Pahranagat | 1 | 40,000 |
| New Jersey | Great Swamp | 1 | 42,000 |
| North Carolina | Pungo | 1 | 90,000 |
| Oregon | Willamette | 1 | 55,000 |
| Total | | 11 | 512,119 |

The total increase of $948,573 is broken down by functional elements involved in management of the national wildlife refuge system as follows:

| Function | Actual, 1963 | Available, 1964 | Increase | Estimate, 1965 |
|---|---|---|---|---|
| (1) Maintenance | $3,834,892 | $4,077,467 | $228,273 | $4,305,740 |
| (2) Management: | | | | |
| Croplands | 1,808,000 | 1,912,740 | 199,500 | 2,112,240 |
| Timberlands | 400,000 | 493,050 | 13,900 | 506,950 |
| Grasslands | 433,000 | 463,150 | 37,100 | 500,250 |
| Marsh and water | 976,000 | 1,089,370 | 93,900 | 1,183,270 |
| (3) Protection | 764,000 | 779,198 | 184,019 | 963,217 |
| (4) Recreation | 292,000 | 293,010 | 166,000 | 459,010 |
| (5) Employees' compensation | 10,108 | 34,442 | 25,881 | 60,323 |
| Total | 8,518,000 | 9,142,427 | 948,573 | 10,091,000 |

(1) *Maintenance, $228,273.*—

(*a*) 9 new refuges, and waterfowl production areas in Nebraska ..... $138,100
(*b*) Existing refuges ..... 25,173
(*c*) Pay act and wage board increase costs ..... 65,000

The $138,100 is needed to initiate maintenance services on nine new refuges, and on approximately 44,000 acres of waterfowl production areas in the State of Nebraska. Such services are necessary to take care of facilities acquired and constructed on newly acquired areas. The $25,173 is needed to improve maintenance services on the 289 existing refuge areas and eliminate a backlog of work. The $65,000 is needed for pay act costs for permanent personnel on existing refuges and periodic wage board pay adjustments based on local and areawide surveys.

(2) *Management, $344,400.*—

(*a*) New refuges and waterfowl production areas ..... $260,400
(*b*) Pay act and wage board increase costs ..... 84,000

The increase for new areas includes $155,500 to initiate management of croplands to feed waterfowl and other wildlife; $7,900 to manage timberlands to improve wildlife food and cover; $28,100 to improve grassland habitat to create favorable nesting conditions for waterfowl and upland game birds; and $68,900 to manage the marsh and water habitat which is the most basic requirement for preserving the waterfowl resource.

(3) *Protection, $184,019.*—

(*a*) New refuges and waterfowl production areas ..... $86,119
(*b*) Existing refuges ..... 72,500
(*c*) Pay act and wage board increase costs ..... 25,400

The $86,119 is needed to initiate protection activities on new refuges and waterfowl production areas. This includes patrol to prevent trespass and enforce migratory game bird regulations and provide fire control and protection from vandalism and other destructive forces. The $72,500 is needed to intensify protection activities on the 289 existing refuges and on approximately 491,640 acres of waterfowl production areas in fee or under easement. The refuge system sustains about 100 wild fires annually which damage approximately 17,000 acres of wildlife habitat. The potential loss is far greater.. The increase will permit more adequate suppression and presuppression activities, such as improved firebreaks, more adequate firefighting equipment, and improved firefighting training. Also needed are more intensive patrol activities to control trespass, prevent game law violations, reduce vandalism and better control ever-increasing public use activities amounting to 12 million visitors annually.

(4) *Recreation, $166,000.*—

| | |
|---|---|
| (*a*) New refuges | $27,500 |
| (*b*) Existing refuges | 131,500 |
| (*c*) Pay act and wage board increase costs | 7,000 |

The $27,500 is needed to carry out supervisory activities in connection with the visitor load on new refuges; $131,500 is needed on existing refuges to meet the heavy demands of the public to picnic, swim, boat, fish, sightsee, and observe waterfowl and other wildlife. There has been a growing awareness of the pleasure to be found in the great out of doors, and the public in seeking it out, is turning increasingly to federally owned lands. As public use expands on lands in the refuge system, facilities must be developed to provide for such use and to concentrate it in those areas where it does not interfere with waterfowl and wildlife management. Such facilities include adequate access roads, parking areas, picnic sites, boat docks, launching ramps, swimming beaches, and water and sanitary facilities. An excellent opportunity exists through a recreational program to carry out conservation education activities. To provide the public with the opportunity to learn about conservation first hand, in natural surroundings, the facilities must first be developed to handle visitors in a way that does not detract from the natural resource.

(5) *Employees' compensation payments, $25,881.*—This increase when added to the $34,442 available in 1964, will provide a total of $60,323 which is needed under 5 U.S.C. 785 to reimburse the employees' compensation fund for 1963 payments on account of the injury or death of employees after December 1, 1960.

During calendar year 1962, the Bureau's work injury frequency rate was a record low of 8.6 per million man-hours of work. This compares with a 5-year average of 11.6 for 1958 to 1962. The Bureau is working toward a goal of five or less disabling work injuries per million man-hours of work with a consequent reduction of the losses in time and money from this cause.

*Plan of work*

The estimate of $10,091,000 will be used for salaries and other refuge operating and management costs in carrying out the waterfowl, other wildlife, and land resource management program of the national wildlife refuge system, and for employees' compensation payments. Significant to this year's plan of work are the following factors:

(1) Continued emphasis is given to the improved management of natural resources which makes improved habitat available for waterfowl and other wildlife.

(2) Management of nine new refuges is undertaken.

(3) Management of waterfowl production areas is initiated in the State of Nebraska and expanded in North and South Dakota and Minnesota.

(4) Particular emphasis is given to the protection and recreation functions of the wildlife refuge management. These activities must be strengthened in order for wildlife management to continue to be effective in the face of ever-increasing visitor use.

(B) ENFORCEMENT OF MIGRATORY BIRD AND LACEY ACTS

The estimate of $3,288,000 is an increase of $126,200 over 1964 of which $40,000 is for pay costs and $86,200 is for replacement and overhaul of aircraft.

*Need for increase*

The $86,200 program increase is needed for the following: $56,000 for replacement of three overage (7 to 9 years) aircraft, and $30,200 for overhaul of engines, accessories, and instruments of three other aircraft to meet FAA maintenance standards. The aircraft to be replaced have reached and gone beyond the life expectancy for low-level flying and must be replaced to maintain the effectiveness of the program.

*Plan of work*

The estimate of $3,288,000 will be used for (1) the administration and enforcement of the Migratory Bird Treaty Act as amended (16 U.S.C. 703–711) and regulations promulgated thereunder to give effect to the treaties with Great Britain and Mexico for the protection of migratory birds, the Lacey Act (18 U.S.C. 42–44) regulating interstate commerce in birds and furs, and other Federal statutes enacted for the protection, conservation, and management of certain wildlife resources in the United States, the Virgin Islands and Puerto Rico; providing farmers with assistance in curbing and reducing damages caused by migratory birds; and (2) the gathering, evaluation, and application of data affecting the preservation and utilization of migratory game birds. The functional breakdown follows:

| | Amount available, 1964 | Estimate, 1965 | Increase |
|---|---|---|---|
| Enforcement and depredations control | $2,683,800 | $2,806,000 | $122,200 |
| Migratory game bird surveys | 478,000 | 482,000 | 4,000 |
| Total | 3,161,800 | 3,288,000 | 126,200 |

*Enforcement and depredations control.*—The 157 U.S. game-management agents are presently employed throughout 49 States and Puerto Rico and the Virgin Islands in carrying out this program. Although often identified principally with enforcement of the Federal game laws, game-management agents engage in a variety of other management activities. They conduct migratory game-bird surveys and banding projects in the United States, Canada, and Mexico; aid farmers in control of depredations to crops by migratory birds at points of actual or potential damage; investigate, report, and act on disease, poisoning, or pollution outbreaks; investigate, inspect, and maintain continuing surveillance over the activities of more than 13,000 wildlife permitees; conduct a progressive and intensive program of wildlife conservation education. Game-management agents maintain close working relationships with the States in furtherance of a cooperative conservation program. The October 14, 1962, amendment to the Bald Eagle Act (U.S.C. 668–668d) extended protection to the golden eagle. There has been a significant increase in illegal traffic in eagle plumage. Complaints of depredations to livestock by golden eagles call for investigations of a continuing nature, increase law enforcement responsibilities, and necessitate an expansion of permit management activities. Prevention of illegal importation of game from Mexico requires a special, well-conducted program. Additional emphasis must be placed at ports of entry in this country to prevent the introduction of exotic species of mammals, fish, reptiles, or birds known to be or likely to prove dangerous to the welfare of agriculture or wildlife resources.

During the period 1952–1963 the Bureau's antimarket hunting enforcement campaign resulted in the apprehension of 372 individuals of whom 97 percent have been brought to trial and convicted. Enforcement activities in this particular field have been successful but, because of the lucrative returns involved, market hunting persists in a number of localities and continued effort is necessary to halt it.

Damages to agricultural crops by migratory waterfowl are an important management problem in many areas of the country. Trained personnel investigate areas of waterfowl concentrations where there is potential or actual damage to crops. They advise farmers and demonstrate dispersal techniques and methods including the use of pyrotechnics in herding the birds. Distribution of Government owned surplus grain for control purposes (act of July 3, 1956, 7

U.S.C. 442 et seq.) has been beneficial in protecting crops from serious losses due to depredating waterfowl. Surplus grain is also distributed where migratory waterfowl are threatened with starvation due to inclement weather (act of August 17, 1961, 7 U.S.C. 447 et seq.).

*Migratory game bird surveys.*—The scope of this program extends throughout the United States and from Canada to Mexico. In all the world there are no more intensive or extensive wildlife surveys than those conducted on the North American Continent and the Bureau is the principal agency involved in the program. The information and data gathered are essential to formulating migratory game bird management plans, and particularly in developing the annual hunting regulations. Waterfowl surveys are conducted throughout the year to determine the utilization of habitat as well as obtain an evaluation of the distribution of the birds and the carrying capacity of the habitat utilized. Surveys of woodcock, dove, band-tailed pigeons, jacksnipe, rails, and gallinule populations have not been conducted on the same scale as waterfowl and there is increasing need to improve the work being done. Banding programs on waterfowl and doves have been stepped-up throughout the country in accordance with Federal-State cooperative plans. The Bureau banding program is in the second 5-year phase on waterfowl on the breeding grounds in Canada. Gradually the remaining work there will shift to the more northern "bush country" where transportation problems are difficult. A small banding program of migratory waterfowl will be initiated in Mexico in 1964 to clarify further the migration routes, habitat utilization, and mortality of birds utilizing the Mexican wintering grounds. Increased emphasis is being placed on preseason and winter banding programs.

*5. Control of predatory animals and injurious rodents*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| Control of predatory animals and injurious rodents | $2,647,918 | $2,710,000 | $2,710,000 | ---------- | ---------- | ---------- |

The estimate for 1965 is $2,710,000, the same as for 1964.

*Plan of work*

A major responsibility of the Bureau is to assist States, counties, municipalities, associations and individuals in protecting agricultural, industrial, and recreational resources from intolerable depredations of animal pests. The animal control program is a Federal-State-private organization partnership arrangement, with the Federal Government providing professional supervision, or demonstrational, technical, and investigative services for programs sponsored and cooperatively financed by these agencies. All possible safeguards are provided for the public, domestic animals, beneficial wildlife, and property.

The 1965 estimate covers Bureau responsibilities for mimimizing the depredations of wildlife and the diseases they transmit to man and animals. The amount requested is essential to uphold present standards of technical quality in the conduct of this Bureau's function under a constantly increasing workload.

The mushrooming human population is effecting drastic changes in both the domestic economy and the American way of life. These changes are not only bringing about vastly increased demands upon the Bureau's animal control program, but they also restrict control techniques to those compatible with multiple land-use practices. Increasing numbers of State and local agencies, recognizing the value as well as the practicality of placing operations under a unified and coordinated approach, are turning to the Bureau for assistance. With increasing public concern over careless use of pesticides and with the increasing variety of toxicants becoming available, it is essential that highly skilled and trained technicians provide close supervision over population management activities.

The remarkable growth and spread of the American population has had, as a natural consequence, an overwhelming demand for information and assistance in mitigating wildlife depredations. The Bureau's response has been to utilize every means at its disposal to reach as large an audience as possible—to encourage people to handle their own problems and provide them with recommendations that are reasonably safe and practical to use. Last year, program personnel conducted 1,445 meetings with community groups, gave 1,325 demonstrations of techniques in the field, held 230 specialized training courses for employees of cooperators, made 830 television and radio presentations, prepared 450 information leaflets and releases, showed 115 exhibits, and investigated 5,625 separate instances of serious damage. Planning for 1965 is based on demands for an increase of a third to a half in these activities merely to maintain the proportional coverage currently obtained.

The necessity for a nuisance bird control program is demonstrated by the increasing number of reports of bird damage inflicted in all parts of the United States, and corresponding requests for assistance. Nine States that tabulated available data reported annual damages to agriculture exceeding $25 million. A 1963 survey of Colorado feedlots by the State department of agriculture found 65 percent suffering damage by starlings. In addition to bird damage to agriculture, which has reached serious proportions, almost every large city has a severe bird problem consisting of roosting pigeons, starlings, and English sparrows. Recent studies indicate the diseases they carry are as serious as the filth they cause. With the introduction of jet-powered aircraft, the hazard from birds has become critical as occurrences of "bird strikes" are more frequent and far more serious.

Cooperative approval and support of the animal control program are indicated by provisions for increases of half a million dollars, making a total of $4,142,000 furnished by cooperators.

*Protection of livestock and game.*—Bureau share, $1,720,000. This function provides for protection of livestock and game from the large wild carnivores commonly referred to as predatory animals. The program is conducted in cooperation with States, counties, and livestock associations. This protection is aimed at maintaining a healthy livestock industry and assisting in restocking of game. Federal participation consists largely of supervision, to assure safety to humans, beneficial wildlife, and domestic animals. Cooperative participation pays for most of the salaries and expenses of trappers and hunters. The ratio between the two types of participation in 1963 was approximately 37 percent Federal and 63 percent cooperative.

*Protection of crops, forage, and forests.*—Bureau share, $720,000. Crop losses from wildlife, once accepted in a farming operation, can no longer be tolerated if the farmer is to remain solvent. Intensified agricultural pursuits aim to improve production and to convert low-yield submarginal lands to forests, rangeland, and soil bank retirements. Realization that the Nation's forest resources have become seriously depleted has resulted in accelerated forest plantings, and former wastelands are now valuable properties undergoing improvement programs. These activities have resulted in improved habitat conditions for many wildlife species, sometimes causing startling increases in their numbers which compounds agricultural problems.

Wildlife losses can be severe. The Bureau of Land Management estimated a loss of over $1½ million per year on reforested lands in one 20,000-acre area in western Oregon. Rodents are unbelievably destructive, causing multimillion-dollar losses to virtually every type of agricultural endeavor. Meadow and pine mice attack orchards, nurseries, and tree plantings. In much of the Northwest and Southeast, deer mice must be controlled before forest reseeding can be successful. Cotton rats, which destroy crops and pine plantings in the Southeastern and Gulf States, are increasing in these States. Pocket gophers cause extensive losses to crops, forage lands, tree plantings, and underground cables; ruin irrigation ditches and canal banks; and are a major factor in range deterioration. Woodchucks cause losses to truck crops, orchards, and forage on eastern farms. Ground squirrels are agricultural pests from the Midwest to the Pacific and the tree squirrels in parts of the East. Muskrats are a menace to farm ponds. Beaver have become intolerable pests in much of the Southeast, the Dakotas, and some Rocky Mountain States. Nutria cause major damage in sugarcane and crop fields. Porcupine damage to forests is a significant problem in the Northeastern and Western States. Rabbits feed heavily on cultivated plants, trees, and crops. Moles damage Pacific coast bulb plantings and bears

ruin timber trees in the Washington and Oregon forests. Coyotes, surprisingly, are a source of major trouble to Texas watermelon growers. One farm group supports two trappers to protect their crops.

The problem of birds in relation to farming, particularly grains and fruits, is of considerable concern, and has become critical in most areas of the country. Most complaints concern blackbirds, crows, starlings, and English sparrows. The damage they cause is widespread and of considerable economic significance. A year ago, directors of agricultural experiment stations in 18 States, reporting on significant bird depredations in their States, noted damage to corn in nearly every State, 9 reported damage to sorghum, 4 to rice, and 4 to fruits. Ohio predicts an annual loss of approximately half a million dollars in field corn (a survey of one county showed blackbirds caused a 17 percent crop loss, amounting to $110,000). Massachusetts, with a $300,000 blueberry crop, estimates an annual loss of $163,000. Arkansas rice farmers estimate an annual loss of $1,400,000, with one farmer alone reporting a loss of about $40,000. Delaware's financial loss to its corn crop is about $170,000, with a 40 to 90 percent crop loss in some areas, and New York's is $272,000. New Jersey's losses are estimated at $2½ to $4 million annually, with perhaps $2 million in corn. Starlings consumed over $22,000 worth of feed from a single Idaho feedlot owner in less than 4 months. One northwestern Missouri feedlot manager reports actual loss records of 600 pounds of mash per day, and a total loss of over $10,000. Within the past 3 to 4 years, Oregon has lost about $1 million worth of holly. Annual losses to starlings sustained by duck farms on Long Island are about $150,000. Fruit and grape growers are experiencing heavy losses. Ravens killed over 400 ewes and lambs in Sonoma County and caused heavy losses in Humboldt County, Calif. It is difficult to appraise intangible losses such as occur when a crop is no longer grown because of economically overpowering losses.

While birds have always been a hazard to aircraft, strikes to propeller-driven planes were rarely disabling in the past, with windshields and propellers sustaining the bulk of the damage. With the introduction of jet-powered aircraft, the hazard to aircraft has become critical as occurrences of bird strikes are more frequent and far more serious. The U.S. Air Force, and commercial airports as well, reports bird hazards at many major installations. One report concerning naval aircraft listed 457 bird strikes in a 20-month period in 1960–61, causing $1½ million in damage. Crashes of at least three jet aircraft (two military, one civilian) last year were directly attributable to bird strikes.

Birds, until recently, have received little attention as disease carriers. A veterinary report in 1963 stated that at least 27 diseases, including 11 bacterial, 7 viral, 4 fungal, and 5 parasitical, are transmissible from birds to man. Studies by the National Institutes of Health have shown starlings and pigeons to be important factors in histoplasmosis outbreaks in urban areas. This fungus disease of the respiratory tract, which causes a debilitating type of pneumonia, is occasionally fatal. A recent survey of Loudoun County, Va., schoolchildren by the NIH showed close to 90 percent human reactors. Mason City, Iowa, and Mexico, Mo., experienced outbreaks with some loss of life. Another, in Milan, Mich., recorded a 62 percent human infection rate, and human cases have now been reported in most population centers in the United States. Starlings and pigeons also, along with English sparrows, transmit ornithosis—a virus similar to the causative agent of parrot fever. A wide variety of external and internal parasites and diseases of domestic animals are carried by these birds. Starlings are also suspected carriers of transmissible gastroenteritis (TGE), a virulent disease of hogs. The U.S. Public Health Service reports a number of species of native birds are carriers of encephalitis.

Bureau research programs in recent years have developed control techniques that are invaluable to farmers, foresters, airport managers, municipal officials, and others if used correctly and within their capacities. State and local agencies are contributing funds to the Bureau for control of nuisance birds. The 1959 Oregon Legislature included a $20,000 biennial appropriation for research and control of starlings. Washington has subsequently appropriated $5,000, and Idaho, $2,000.

*Protection of people, Bureau share, $135,000.*—The Bureau's efforts are directed toward the reduction of wildlife having wildlife-carried diseases and parasites that are transmissible to man and domestic animals. Rabies is the most spectacular, and is responsible for the greatest known losses. Livestock losses are particularly severe, amounting to millions of dollars a year. An

average of upward of a thousand or more people per year per State are bitten by animals, and the majority are required to undergo the painful and dangerous antirabies treatments. Incidences of rabies were on the increase during 1962. In many areas, particularly in the West and the Southwest, much of the service provided by livestock protection functions also affords protection to people. These carefully designed dual benefits are examples of the Bureau's efforts to obtain the widest possible utilization of its manpower.

*Protection of structures and facilities, Bureau share, $135,000.*—Damage caused by commensal rodents and nuisance native species that invade and damage property is tremendous. Rats and mice have long been recognized as one of the most destructive pests of mankind. Every State harbors these pests. Costs to the American public have been variously estimated in the billions of dollars. Ohio alone estimates an annual loss to rats and mice of $42½ million. The grain sanitation program includes assistance to grain elevators, mills, and food processors, warehouses, retail outlets, and consumers. Processed foods in warehouse and retail store suffer heavily and the value of materials condemned or voluntarily discarded runs into millions.

Grouped as nuisance species for this function are most forms of wildlife that at times and in places cause significant damage to property. Major damage occurs when burrowing rodents invade water structures and impoundments, fringe-area warehousing and storage facilities, and communications centers. Municipal dumps, particularly in rural areas, are prime attractants to many animals, some undesirable. Nearly all are sources of rat infestations in adjacent areas.

Educational programs to teach property owners practical techniques safe to use in residential areas must reach millions of people. The commercial pest control industry must also be taught proper practices when dealing with wildlife. Planning for 1965 anticipates demonstrations, community meetings, preparation of informational leaflets, and technical training sessions.

*6. Wildlife research*

| Subactivity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Waterfowl management | $538,820 | $698,000 | $863,000 | $165,000 | $10,000 | $155,000 |
| (b) Other migratory bird research | 318,694 | 351,000 | 357,000 | 6,000 | 6,000 | ---------- |
| (c) Upland wildlife | 203,920 | 213,000 | 217,000 | 4,000 | 4,000 | ---------- |
| (d) Pesticide-wildlife relationships | 546,642 | 662,000 | 1,920,000 | 1,258,000 | 8,000 | 1,250,000 |
| (e) Diseases-parasites | 157,157 | 377,500 | 383,000 | 5,500 | 5,500 | ---------- |
| (f) Control methods | 615,471 | 1,042,500 | 1,059,000 | 16,500 | 16,500 | ---------- |
| (g) Classification, distribution and life history | 145,324 | 154,500 | 159,000 | 4,500 | 4,500 | ---------- |
| (h) Cooperative wildlife research units | 252,687 | 260,000 | 264,000 | 4,000 | 4,000 | ---------- |
| Total | 2,778,715 | 3,758,500 | 5,222,000 | 1,463,500 | 58,500 | 1,405,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*(a) Waterfowl management*

The estimate of $863,000 is an increase of $165,000 and 10 permanent positions over 1964, of which $10,000 is for pay costs and $155,000 and 10 permanent positions is for program purposes.

*Need for increase.*—The increase of $155,000 and 10 permanent positions is needed for staffing of the Northern Prairie Wildlife Research Center in order to perform laboratory, controlled environment, and field studies concerning means of obtaining optimum waterfowl production from available wetland habitats and ways of maintaining maximum waterfowl populations compatible with other resource and spatial needs.

*Plan of work.*—The estimate of $863,000 will be used for scheduled waterfowl research projects, annual hunter success and productivity surveys, analysis of data and publication of results. Emphasis will be placed on means of managing waterfowl to provide maximum sustained recreational benefits in harmony with

other land use objectives. Projects will be carried out to evaluate effects of hunting and other mortality factors on waterfowl to ascertain environmental requirements of individual species, and to develop improved methods of habitat management. Although migrational and wintering aspects of waterfowl conservation will receive continuing attention, intensified efforts will be directed to productivity studies and to production enhancement measures. Dissemination of research findings to waterfowl managers and administrators will be carried out promptly. The waterfowl research program is cooperative in nature involving the Mexican, Canadian, Provincial, and State governments, flyway councils, and private organizations.

(*b*) *Other migratory bird research*

The estimate of $357,000 is an increase of $6,000 over 1964 for pay costs.

*Plan of work.*—The estimate of $357,000 will be used for scheduled migratory bird research projects, for the processing and maintenance of bird banding records, and for the classification, storage, retrieval, and analysis of research data. Mourning dove research will be continued under the plans developed jointly with the International Association of Game, Fish, and Conservation Commissioners with primary emphasis on the development of population inventory and harvest estimates. Woodcock and snipe studies will involve the collection of data for regulation determinations and the refinement of inventory survey techniques. The status and seasonal movements of nongame migratory birds will be studied in cooperation with the National Audubon Society and other cooperators. Avicultural studies will be continued with captive sandhill cranes and Aleutian geese at Monte Vista National Wildlife Refuge.

(*c*) *Upland wildlife*

The estimate of $217,000 is an increase of $4,000 over 1964 for pay costs.

*Plan of work.*—The estimate of $217,000 will be used for scheduled research projects and for preparation, publication, and distribution of "Wildlife Review," a literature reference and abstracting service for wildlife conservationists. Forest-wildlife relationship studies will continue to evaluate the impact of forest management practices on wildlife and to seek methods or modifications which will lead to the maintenance of optimum wildlife populations consonant with the multiple-use philosophy. The pattern of joint studies with Forest Service personnel will be continued. The response of farm game populations to soil conservation practices will also be studied.

(*d*) *Pesticide-wildlife relationships*

The estimate of $1,920,000 is an increase of $1,258,000 and 15 permanent positions over 1964, of which $8,000 for pay costs and $1,250,000 and 15 permanent positions are for expansion of the program.

*Need for increase.*—The increase of $1,250,000 and 15 permanent positions are needed for the following:

Seventy-five thousand dollars and one permanent position are needed to develop a sampling design and perform pilot tests leading to the establishment of an environmental contamination monitoring program. Kinds and quantities of chemicals in one component of the environment (soil, water, air, plants, and animals) are irrevocably linked with kind and quantities of chemicals in each of the others. Quantitative and time relationship are complex, and direct readings from one to the other are presently possible. We do not know how long the process takes or the degree of the transferable pollution, whether magnified or diminished. It is essential, therefore, that current readings of contamination be maintained in a continuous surveillance program, both to sound warnings and to gain understanding.

Two hundred and fifty thousand dollars and two permanent positions are for the evaluation of new pest control materials and methods. New chemicals are being marketed at an increasing rate which will increase with the search for more specific chemicals that will act on target organisms rather than on the whole complex of life. It is a Government responsibility to help bring new, more effective, less dangerous chemicals to the using public in an expeditious, orderly fashion. Prompt and dependable evaluation is essential and the purpose of the research work in this connection is to study how the evaluations should proceed and how more effective screening methods can be developed before the establishment of standardized procedures, the ultimate objective.

Five hundred and fifty thousand dollars and 4 permanent positions are needed for basic research on the toxicology and pharmacology of pesticidal chemicals

to gain an understanding of the effects of pesticides on wildlife and their food chain organisms. Carefully designed experiments are needed to provide knowledge of the rates of gain and loss of chemicals in animals, the damages chemicals do therein, and possible changes in toxicity of chemicals as they go through the metabolic system of the animal. Accumulation and analysis of this data will allow intelligent interpretation of the significance and consequence of pesticidal residues in tissues and plants and animals.

Two hundred and twenty-five thousand dollars and two permanent positions are needed for studies of the ecological effects of pesticides on plants and animals. In addition to the study of the effects of pesticides on the individual organism, knowledge must be acquired as to the effects of pesticides on whole populations. Populations are affected through food and water supplies, by soil and air contamination and by the effects of the chemicals on their natural enemies. Measurement of the total ecological effects is the most difficult and most important aspect of pesticide control and evaluation. It involves complex interactions between individual animals, and animals and their environments. Much of the initial research will involve the development of improved methods and criteria for the evaluation of ecological impact of pesticidal applications.

One hundred thousand dollars and five permanent positions are needed for the surveillance of operational pest control programs to ascertain the effects of some of the larger operational pest control programs to ascertain the effects of the treatments on forest and agricultural wildlife. Field surveillance is necessary since effects on the total environment cannot be fully predicted from studies in the laboratoy or on trial plots. This work should provide guidelines which will forestall serious unforseen consequences and develop better and safer modifications of existing procedures.

Fifty thousand dollars and one permanent position are needed for interdepartmetal coordination and public information purposes. Coordination of objectives in research, operations, and public information is the only avenue to the maintenance of public confidence in the technical branches of the Government and the only avenue to true protection of man, wild animals, and fishes, and the lands and waters on which they jointly depend. To achieve this goal the technical liaison and conservation information and education staff must be bolstered to assume meaningful initiative and discharge fully the responsibilities inherent in this line of activity.

*Plan of work.*—The estimate of $1,920,000 will be used for scheduled pesticide-wildlife research projects, related laboratory service work, surveillance activities and for research contracts. Acute and chronic toxicity evaluations of pesticides in common usage and studies of their ecological and physiological effects will be continued through feeding tests and controlled plot studies using a variety of key bird and mammal species. Dosage rates, active ingredients, carriers, timing, and methods of applications of pesticides will be correlated with observed effects on wildlife to assist in the development of new materials and techniques which will enable effective control with minimum damage to wildlife. Extrameral research and service work will be performed on selected aspects of the problem which are not feasibly handled on an in-house basis. This will include contracts with educational institutions for research in ecology and toxicology amounting to $450,000 and contracts for special studies and specimen analysis amounting to $225,000.

*(e) Diseases and parasites*

The estimate of $383,000 is an increase of $5,500 over 1964 for pay costs.

*Plan of work.*—The estimate of $383,000 will be used for scheduled disease research projects and for associated laboratory service work. Studies designed to investigate the principal etiological agents of diseases in wildlife will be continued in an effort to accumulate information on which to base feasible control measures. Attention will be given to diseases, such as encephalitis, which affect both humans and wildlife. The potential of disease organisms in the control of nuisance wildlife populations will be explored. Contract research on regional wildlife disease problems will be continued at the University of Georgia and all possible assistance will be given the southeastern wildlife disease study. Cooperative studies with the National Institutes of Health, the Walter Reed Army Institute of Research, and Johns Hopkins University will be continued to insure the maximum effectiveness of available talent and existing facilities.

*(f) Control methods*

The estimate of $1,059,000 is an increase of $16,500 over 1964 for pay costs.

*Plan of work.*—The estimate of $1,059,000 will be used for scheduled research projects and laboratory service work oriented to the control of nuisance and destructive populations of birds and mammals. Studies have been intensified to develop selective and effective control methods for alleviating damage to corn, rice, orchard crops, livestock, and forest reproduction. Particular emphasis will continue to be placed on the corn blackbird problem in the East, the rice blackbird and nutria problems in the South Central States, the starling and forest rodent problems in the West, and the predator and rodent problems on the rangelands. In addition to the screening of repellent, sterility-producing, and lethal chemicals, which will be carried out in cooperation with the chemical industry, work will continue on the refinement of scaring and trapping devices, cultural methods, and habitat manipulation as means of effecting damage control. Studies of the biology distribution and behavioral traits of birds and mammals will be made to provide the basis for selective control procedures. Extensive control operations will be appraised for total impact on the wildlife environment.

*(g) Classification, distribution, and life history*

The estimate of $159,000 is an increase of $4,500 over 1964 for pay costs.

*Plan of work.*—The estimate of $159,000 will be used for scheduled research projects, bird and mammal identification services, maintenance of the scientific specimen collections, and coordination of the nationwide bat-banding program. Basic taxonomic research will continue to focus on migratory game birds and other species of primary concern in the Bureau's management programs. Manuscripts on the sea otter, Pacific walrus, and birds of the northern Rocky Mountains will be brought to completion. Data will be provided on the ranges and status of endangered and rare bird and mammal species for delineating acquisition areas or for taking precautions to prevent catastrophe in pest control programs.

*(h) Cooperative wildlife research units*

The estimate of $264,000 is an increase of $4,000 over 1964 for pay costs.

*Plan of work.*—The estimate of $264,000 will be used for the Bureau's share of the costs of the cooperative wildlife research units, a program supported jointly by the Bureau, the Wildlife Management Institute, and the land-grant colleges and conservation departments of 18 States for the purpose of conducting wildlife research, facilitating the training of professional wildlife biologists, promoting conservation education, and providing technical advice and information to conservation agencies. Bureau biologists serve as unit leaders and guide the programs developed by the local coordinating committees. Research on migratory birds, pesticide-wildlife relationships, animal depredations control, and other subjects of national interest is encouraged.

The estimate of $264,000 is distributed among the units as follows:

| Field station | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|
| Auburn, Ala. | $12,000 | $12,200 | +$200 |
| College, Alaska | 19,300 | 20,300 | +1,000 |
| Tucson, Ariz. | 13,000 | 14,000 | +1,000 |
| Fort Collins, Colo. | 13,200 | 13,100 | −100 |
| Moscow, Idaho | 13,200 | 14,000 | +800 |
| Ames, Iowa | 13,200 | 14,000 | +800 |
| Lafayette, La. | 11,100 | 11,700 | +600 |
| Orono, Maine | 13,100 | 14,000 | +900 |
| Amherst, Mass. | 13,100 | 14,000 | +900 |
| Columbia, Mo. | 13,200 | 14,000 | +800 |
| Missoula, Mont. | 13,200 | 14,000 | +800 |
| Ithaca, N.Y. | 11,000 | 11,700 | +700 |
| Columbus, Ohio | 13,200 | 14,000 | +800 |
| Stillwater, Okla. | 12,000 | 12,300 | +300 |
| University Park, Pa. | 12,200 | 12,500 | +300 |
| Brookings, S. Dak. | 14,000 | 13,200 | −800 |
| Logan, Utah | 13,200 | 14,000 | +800 |
| Blacksburg, Va. | 12,000 | 12,100 | +100 |
| Central office supervision | 24,800 | 18,900 | −5,900 |
| Total | 260,000 | 264,000 | +4,000 |

*7. Soil and moisture conservation*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost | Program |
| Soil and moisture conservation | $694,126 | $705,000 | $705,000 | ---------- | ---------- | ---------- |

*Soil and moisture conservation*

The estimate for 1965 is $705,000, the same as for 1964. Pay costs are being absorbed.

*Plan of work.*—The estimate of $705,000 is for work on 118 units of the refuge system in 43 States as compared with 94 units in 41 States in 1964. The estimate will serve a threefold objective: (1) continue the work in progress; (2) initiate work on additional refuges which has long been delayed, and (3) plan and initiate work on a few recently acquired areas.

*8. River basin studies*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| River basin studies | $1,177,472 | $1,318,000 | $1,337,000 | $19,000 | +$19,000 | ---------- |

[1] To provide for increased pay costs for fiscal year 1964 positions.

RIVER BASIN STUDIES

**The estimate for 1965 is $1,337,000, an increase of $19,000 over 1964.** This increase is for pay costs.

*Plan of work*

Under authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), the Bureau studies water-use projects of Federal agencies and other agencies under Federal license or permit throughout the United States to determine their effects on fish and wildlife resources, and recommends measures needed for the protection and improvement of these resources. Investigations by this Bureau are conducted in close cooperation with the Bureau of Commercial Fisheries and with the State fish and game agencies concerned. The workload of the river basin studies program is not controlled by the Bureau but depends entirely upon the size of the water-use programs of other Federal and private agencies, which have been increasing substantially each year. More and larger Federal projects will be included in these programs in 1965 than in 1964. This will have an increasing impact on fish and wildlife resources. In 1965 the various phases of the river basin studies activity will be continued as follows:

1. *Wetlands preservation program.*—The act of October 2, 1962 (16 U.S.C. 590 p. 1) prohibits the Department of Agriculture from providing technical or financial assistance in the drainage of wet lands on farms in North Dakota, South Dakota, and Minnesota if the Secretary of the Interior finds that such drainage will be harmful to wildlife. The Bureau of Sport Fisheries and Wildlife inspects applications for this drainage in cooperation with the Agricultural Stabilization and Conservation Service and the Soil Conservation Service of the Department of Agriculture.

On areas found to be of value, the Bureau makes offers to landowners under authority of the act to buy or take easements on the wet lands during

a 1-year period in which no assistance will be given. If the offer is not accepted, the landowner is not eligible for Federal assistance in drainage for a period of 5 years. This phase of the wetlands preservation program will be continued at the same level as 1964. During 1965, it is expected that the Department of Agriculture agencies will refer to this Bureau for review 13,000 drainage applications from 179 counties in Minnesota, North Dakota, and South Dakota which are critical from a waterfowl production standpoint. The Bureau will be able to inspect about 7,000 of these applications from 118 of the most critical counties in the 3 States during 1965.

The rest of the wetlands preservation program will also be continued at the same level throughout the remainder of the United States. Proposals affecting wet lands will be studied, and, when harmful, appropriate corrective action will be recommended to Federal, State, and other conservation organizations. Liaison will be carried out with appropriate agencies and organizations to keep them advised as to wet lands offering opportunities for preservation and development as wildlife habitat.

2. *Surveys of water-use projects.*—This phase of the program will be continued at the same level as 1964. Investigations will be conducted of Bureau of Reclamation projects; Corps of Engineers projects; hydroelectric projects subject to Federal Power Commission license or permit; small reclamation projects; private dredging, filling, and other projects subject to Corps of Engineers permits; and projects subject to Forest Service and Bureau of Land Management permits. Studies of Corps of Engineers and Bureau of Reclamation projects under this activity are of a reconnaissance nature and will be used in determining the extent to which further detailed studies will be required.

3. *Small watershed program.*—Work under this program will be conducted at the same level as 1964. Both reconnaissance and detailed studies will be carried out on projects proposed under the Watershed Protection and Flood Prevention Act (16 U.S.C. 1008) administered by the Department of Agriculture. Section 12 of that act specifically assigns to the Secretary of the Interior responsibility for investigation of the fish and wildlife aspects of these projects and for assistance in planning federally cost-shared fish and wildlife developments. This program provides an excellent opportunity for State fish and game departments to obtain needed fish and wildlife developments at a reasonable cost. Interest among State fish and game departments and among local project sponsor groups in this program is increasing rapidly.

4. *Urban planning assistance program.*—This program will be continued at municipal governments in planning fish and wildlife areas for urban and rural development programs. Such cooperation by this Bureau has been urged by the Federal Housing and Home Finance Agency at both the Washington and regional levels. Section 701 of the Housing Act of 1954 (40 U.S.C. 461) authorized the urban renewal program of the Housing and Home Finance Agency to administer Federal grants to State planning agencies for use in planning for development of urban and rural areas.

On September 23, 1959, the act was amended to provide broader authority for participation by State planning agencies and to increase the Federal grants and aid available for such agencies. Through close coordination with State and private planners and with local residents and governments, fish and wildlife planning is effectively introduced into county zoning plans, and areas are thereby set aside for future fish and wildlife benefits. Similar areas are set aside by municipal governments in the development of plans for urban expansion.

5. *Follow-up program.*—This phase of the activity will be conducted at the same level as 1964. Under this program, basic information is obtained on completed projects for use in analyzing future water resource projects more effectively. Projects previously studied by the Bureau are reanalyzed to determine whether or not recommendations were adopted, to evaluate the biological soundness and results of conservation measures incorporated in these projects, and to evaluate the estimates of fishing and hunting utilization made prior to project construction. Data of this type are vitally needed to forecast as accurately as possible future fishing and hunting use of proposed projects.

The 1965 estimate is broken down by areas as follows:

| | Available, 1964 | Increase | Estimate, 1965 |
|---|---|---|---|
| Region 1, Pacific | $263,000 | $5,000 | $268,000 |
| Region 2, southwest | 226,000 | 4,000 | 230,000 |
| Region 3, north central | 341,000 | 4,000 | 345,000 |
| Region 4, southeast | 164,000 | 2,000 | 166,000 |
| Region 5, northeast | 137,000 | 7,000 | 144,000 |
| Washington office | 187,000 | −3,000 | 184,000 |
| Total | 1,318,000 | 19,000 | 1,337,000 |

Detailed studies of projects being planned and constructed by the Corps of Engineers and Bureau of Reclamation and also reconnaissance surveys in the Missouri River Basin will be financed by funds included in the public works appropriation estimates.

FINANCING THE RIVER BASIN STUDIES PROGRAM

The following tabulation shows by sources total funds available to the Bureau in 1964 and estimate for 1965 for financing river basin studies:

| | Available, 1964 | Increase (+) or decrease (−) | Estimate, 1965 |
|---|---|---|---|
| Annual definite appropriation: Management and investigations of resources | $1,318,000 | +$19,000 | $1,337,000 |
| Permanent indefinite appropriation: Federal aid in wildlife restoration | 30,000 | −30,000 | |
| Transfer appropriations: | | | |
| Bureau of Reclamation | 360,559 | +9,441 | 370,000 |
| Bureau of Reclamation (Missouri River Basin studies) | 327,888 | +6,112 | 334,000 |
| Corps of Engineers | 786,577 | −76,577 | 710,000 |
| Total | 2,823,024 | −72,024 | 2,801,000 |

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $27,577,322 | $30,559,727 | $34,419,000 | $3,859,273 |
| Unobligated balance lapsing | 210,118 | | | |
| Comparative transfer from other accounts | −92,556 | | | |
| Transfer to "Operating expenses, Public Building Service," General Services Administration (75 Stat. 353) | 34,616 | 30,173 | | −30,173 |
| Appropriation | 27,729,500 | 30,589,900 | 34,419,000 | 3,829,100 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 16,373,274 | 19,221,000 | 20,841,000 | 1,620,000 |
| 12 Personnel benefits | 1,324,593 | 1,493,000 | 1,646,000 | 153,000 |
| 21 Travel and transportation of persons | 1,352,489 | 1,430,000 | 1,634,000 | 204,000 |
| 22 Transportation of things | 174,015 | 192,000 | 207,000 | 15,000 |
| 23 Rent, communications, and utilities | 629,925 | 621,727 | 789,000 | 167,273 |
| 24 Printing and reproduction | 173,506 | 227,000 | 264,000 | 37,000 |
| 25 Other services | 1,279,478 | 1,312,000 | 1,815,000 | 503,000 |
| Services of other agencies | 380,435 | 290,000 | 511,000 | 221,000 |
| 26 Supplies and materials | 3,591,028 | 3,951,000 | 4,295,000 | 344,000 |
| 31 Equipment | 1,883,457 | 1,578,000 | 1,957,000 | 379,000 |
| 32 Lands and structures | 646,974 | 464,000 | 685,000 | 221,000 |
| 42 Insurance claims and indemnities | 9,161 | 10,000 | 5,000 | −5,000 |
| 99 Undercover payments | 1,928 | 15,000 | 25,000 | 10,000 |
| Subtotal | 27,820,263 | 30,804,727 | 34,674,000 | 3,869,273 |
| Deduct quarters and subsistence charges | 242,941 | 245,000 | 255,000 | 10,000 |
| Total obligations | 27,577,322 | 30,559,727 | 34,419,000 | 3,859,273 |

Chairman HAYDEN. If you care to, you may read your statement or, if you prefer, you may highlight the management and investigations activities of the Bureau of Sport Fisheries and Wildlife for this past year.

Mr. JANZEN. Mr. Chairman, I have a statement which I would like to insert for the record and I would like to very briefly highlight our budget.

(The statement referred to follows:)

STATEMENT OF DANIEL H. JANZEN, DIRECTOR, BUREAU OF SPORT FISHERIES AND WILDLIFE

Mr. Chairman and members of the committee, we are glad to be here today to answer your questions on the 1965 budget estimates of the Bureau of Sport Fisheries and Wildlife.

The 1965 budget estimates for the annual definite appropriations show a net increase of only $233,773. However, by readjustment of priorities of continuing programs it is possible to augment the pesticides research program by $1,930,000, provide $1,079,119 for operation of new installations and facilities, and also cover $593,781 in uncontrollable increased pay and compensation costs of the existing staff.

The annual definite appropriation estimates total $47,396,000 with a net increase of $233,773 over 1964 as mentioned above. The management and investigations of resources estimate is $34,419,000, an increase of $3,859,273. The construction estimate is $3,593,000, a decrease of $1,650,500. The advances to migratory bird conservation account estimate is $8 million, a decrease of $2 million. And the general administrative expenses estimate is $1,384,000, an increase of $25,000.

The increase in pesticide research funds will enable the Bureau to implement the recommendations of the President's Science Advisory Committee as contained in its report "Use of Pesticides." It will answer demands of the public for forthright governmental action to meet the many unprecedented problems stemming from the widespread use of pesticides with attendant losses and dangers to fish and wildlife resources.

The increase will enable an acceleration of the basic work of testing the acute and chronic effects of present and proposed chemicals on individual animals under controlled laboratory conditions. Several relatively new programs of study will be undertaken to explore the present and future effects of chemicals in the total environment, and to devise effective methods of monitoring and determining the effects of pesticidal contamination of soil, air, water, plants, and animals over large areas.

The pesticides problem is not simply one of a "Yes" or "No" answer to any use of chemicals. Chemicals are invaluable for specific purposes and their use is here to stay. The problem may best be met by controlled use, avoidance of contact by animals, or acceptance of the inevitably of some contamination. To this end, the estimates are intended to provide a practical, useful program leading to effective surveillance of large-scale applications of pesticides on forests and agricultural lands, devising methods of avoiding harmful effects or preventing contact with contaminants, and establishing tolerances for pesticides in animals. Solving these problems involves work of other agencies and private organizations. The estimates not only include contract research work, but also provide for interdepartmental coordination of efforts and public information.

Laboratory space and facilities for the expanded pesticides research program will be provided by an estimate of $1,335,000 in the "Construction" appropriation for new laboratories at Columbia, Mo., and Denver, Colo. The first will meet the peculiar needs of work on fishes; the second of pesticidal chemical screening.

The estimates also include $1,079,119 to place into operation new facilities at 34 fish hatcheries, commence management of nine new refuges and a number of waterfowl production areas, initiate research work at the new fish genetics laboratory at Beulah, Wyo., and staff the new Northern Prairie Wildlife Research Center near Jamestown, N. Dak. Also provided is $315,373 for more adequate management of refuges and replacement and overhaul of aircraft.

In addition to the pesticide research laboratories, the construction estimate includes $150,000 for replacing the water supply line at the Leavenworth (Wash.) National Fish Hatchery, $500,000 for plans and specifications for the National Fisheries Center and Aquarium at Washington, D.C., at $1,468,000 for development on 12 national wildlife refuges, and advance planning and $140,000 for wildlife research facilities at Jamestown, N. Dak., and Laurel, Md.

The $8 million estimate for advances to the migratory bird conservation account, together with $4 million from the sale of duck stamps in a permanent indefinite appropriation, will support a balanced program of acquisition of 225,000 acres of land for migratory waterfowl, of which 85,000 acres will be in refuges and 140,000 acres in waterfowl production areas.

The Bureau will have obligated by the end of 1964 all the funds appropriated for the accelerated land acquisition program and has a backlog of projects approved by the Migratory Bird Conservation Commission in excess of the total estimate of $12 million for land acquisition in 1965.

Economy in the utilization of manpower and the expenditure of funds for travel, supplies, and equipment will continue to be a major goal of the Bureau. While the 1965 estimates enable expansion in a number of areas, such as pesticides research and operation of new facilities, total Bureau employment is being held at the 1964 level with no increase in the number of authorized permanent positions. Personnel increases in certain activities are offset by decreases in other programs. Travel in the Bureau's budget schedules (which include the annual and permanent indefinite appropriations, advances and reimbursements, and contributed funds) is estimated at $2,646,000, an increase of $155,000 over 1964; supplies and materials are estimated at $5,202,000, a $5,000 decrease under 1964; and equipment is estimated at $2,378,000, a $110,000 increase over 1964. The increases in travel and equipment are the minimum needed to support program expansion in pesticides research, operation of new facilities, and a shift in emphasis in the land acquisition program to the acquisition of small wetlands areas requiring more travel.

### Management and Investigation of Resources

Mr. JANZEN. I think our budget could be probably best summarized by saying that it has a net increase of only $233,773, although we are providing for a number of increases by readjustment within the budget to take care of an expanded pesticide research program, to provide for the operation of a number of new facilities, and for a little over half a million dollars to take care of uncontrollable increased pay and compensation costs. This adjustment has involved a decrease in the level of construction for 1965 and a decrease in our land acquisition program.

### Pesticide Research Program

We are pushing our pesticide research program simply because the problem has become so serious to the fish and wildlife. It is probably one of our major pollution problems, both on land and water. It is so complicated, keeping in mind that we are talking about many hundreds of chemicals with about 700 species of birds, many hundreds of species of fish and mammals and each of these chemicals can affect each of these species in a different manner which makes the combination almost unbelievable. And we feel it is so important that we are giving the pesticide program special consideration. In this pesticide program we also are including an amount of a little over $1 million for the construction of new laboratories at Columbia, Mo., and Denver, Colo. We also felt that we had to get our new facilities, such as our refuges, fish hatcheries, under operation. And that is another reason we needed this adjustment under our budget.

PROPOSED NEW PROGRAMS

We plan to commence management at 9 new refuges, to place into operation new facilities at 34 fish hatcheries, and to initiate research work at a new fish genetics laboratory. Also, we had to provide for the replacement of six airplanes, and for the major overhaul of three others which had reached the stage where they were no longer flyable. We have a few construction items. They consist of replacing a water supply line; $500,000 for plans and specifications for the National Fisheries Center and Aquarium at Washington, D.C.; about $1.5 million for development at 12 national wildlife refuges and for advanced planning; and $140,000 for facilities at Jamestown, N. Dak., and Laurel, Md.

LAND ACQUISITION PROGRAM

Our land acquisition budget is being reduced from a figure of $10 million, which was approved by Congress for 1964, to a figure of $8 million for 1965. I might say in connection with this land acquisition program that we will have all of the funds which were appropriated for 1964 obligated by the end of the fiscal year and that we have a very substantial backlog of projects approved by the Migratory Bird Conservation Commission. So we are in pretty good shape there.

MANPOWER UTILIZATION

We have been stressing better manpower utilization and this year we are asking for no increase in personnel as we did last year. I think that very briefly summarizes my statement and I will be very glad to answer any questions you might have.

WAGE BOARD INCREASES

Chairman HAYDEN. I note that a part of the increased costs of fish hatchery operations are wage board increases. However, you say that the $101,000 increase which you request will only partially cover the growing costs of the wages. How much is actually being absorbed?

Mr. TUNISON. I cannot answer that and may we submit that for the record?

Chairman HAYDEN. You may.

(The statement referred to follows:)

BUDGET ESTIMATE

In fiscal year 1965, an additional $177,200 is needed to cover the increased costs of wage rate payments for unclassified positions. The budget estimate for this item is $101,000. The difference between the amount needed and the budget allowance, which must be absorbed, is $76,200. In order to absorb this amount it is necessary to curtail fish production at some of the hatcheries.

ASSISTANCE TO INDIAN TRIBES

Chairman HAYDEN. You say that since the work done by you and by the Indians on the Fort Apache Reservation in Arizona has been so successful, other tribes have asked for assistance in establishing and conducting similar programs. Which tribes have asked for such assistance and to what extent are you furnishing it?

Mr. TUNISON. There are some 45 tribes that have requested assistance and we are helping them. There are more that hope to have help. If you wish, we can give you a list of those tribes.

Chairman HAYDEN. You might do that for the record.

Mr. TUNISON. All right, Mr. Chairman.

(The statement referred to follows:)

INDIAN RESERVATIONS PROVIDED FISHERY MANAGEMENT SERVICES IN 1965

Arizona:
- Fort Apache
- Hualapai
- Navajo
- Hopi
- San Carlos
- Colorado River
- Gila River

Colorado:
- Southern Ute
- Ute Mountain

Florida: Seminoles

Idaho: Fort Hall

Minnesota:
- Grand Portage
- Red Lake

Montana:
- Rocky Boy
- Blackfeet
- Fort Belknap
- Flat Head

Nevada:
- Pyramid Lake
- Walker River
- Summit Lake

New Mexico:
- Mescalero Apache
- Laguna
- United Pueblos
- Zuni
- Jicarilla Apache

North Carolina: Cherokee

North Dakota:
- Fort Berthold
- Standing Rock

Oregon:
- Umatilla
- Warm Springs

South Dakota:
- Rosebud
- Crow Creek
- Lower Brule
- Pine Ridge
- Cheyenne River

Utah:
- Goshute
- Uintah-Ouray

Washington:
- Tulalip
- Quinalt
- Yakima
- Muckleshoot
- Puyallup
- Nisqually

Wisconsin: Lac Du Flambeau

Wyoming: Wind River

In addition to the above, about 18 additional Indian reservations have requested assistance beyond that contemplated in the 1965 budget proposal.

COOPERATIVE FISHERY UNIT AT TUCSON, ARIZ.

Chairman HAYDEN. I have been in correspondence with Dr. Richard A. Harvill, president of the University of Arizona, concerning the desirability of establishing a cooperative fishery unit at Tucson. I believe that the Arizona Game & Fish Department now participates in the fisheries management curriculum at the university which offers a degree in fisheries management. Would you please prepare for the record a statement as to the desirability and cost of establishing such a unit?

Mr. JANZEN. Yes, sir.

(The statement referred to follows:)

DESIRABILITY AND COST

*Funds required to initiate the unit, $40,000*

The University of Arizona, through its president, Dr. Richard A. Harvill, has expressed a desire to participate in the cooperative fishery unit program. The Bureau concurs in this proposal and believes that a fishery unit in Arizona would result in improved recreational fishing following the application of new information to the aquatic resources of the State. In establishing the unit,

the university and the Arizona Game and Fish Department would enter into an agreement with the Bureau of Sport Fisheries and Wildlife. State funds would be used in supporting work of graduate students, and the university would make available office and laboratory space, and the use of its various facilities and services.

The University of Arizona is well located for a fishery unit where activities related to fishery research and management can be profitably pursued. In addition to augmenting facilities to train students for employment by State and Federal agencies, the fishery unit would make a valuable contribution to fishery science through its research activities. The unit leader and assistant leader, appointed under Civil Service procedures, would supervise the work of graduate students seeking advanced degrees.

The Bureau of Sport Fisheries and Wildlife already has a strong interest in recreational fishing in the Fort Apache, Navajo, San Carlos, Colorado River, and other Indian reservations in Arizona, through its cooperative management programs. The fishery resources of the reservoirs of the Salt River Valley, as well as the large impoundments of the Colorado River, offer exceptional opportunity for research to obtain information needed for proper management of the fishery resources. A large variety of fishes occur in the State, including trout and the warm water species. Many studies which would be conducted under the sponsorship of the unit would be of equal interest to the Arizona Game and Fish Department.

The population of Arizona increased from 750,000 in 1950 to 1,302,000 in 1960. Projected estimates show that the population may surpass 5,800,000 by the year 2000. At the same time, a greatly expanded program of water resources development is expected to occur and the problems of providing and sustaining the recreational fishing will become more complex. In Arizona, over 73 percent of the State area is in Federal or tribal ownership, and there is a strong Federal responsibility to participate in resource management programs.

The funds proposed, $40,000, would provide approximately $22,000 for the salaries of the unit leader and the assistant leader; $10,000 for salaries and expenses of students; and $8,000 for general expenses, including technical equipment for laboratory and fieldwork.

### Pesticides Research

Chairman Hayden. Over half of your proposed increase for management and investigations of resources is contained in your request for funds to investigate fish and wildlife relationships with pesticides. In fiscal year 1964, you had $934,000 available for investigation of toxicological effects of pesticides on fish and wildlife and carried on your work with 83 personnel.

In a supplemental appropriation request transmitted to Congress last November, you asked for an additional $300,000 and 31 permanent employees for this purpose. I will place that request in the record.

(The statement referred to follows:)

*Management and investigations of resources*

| | |
|---|---|
| Request (for 6 months from Jan. 1, 1963) | $300,000 |
| Appropriation to date | $30,589,900 |
| Obligations to Oct. 31, 1963 | $10,372,745 |
| Expenditures to Oct. 31, 1963 | $7,851,790 |
| Employment: | |
| Average number, current appropriation | 2,985 |
| Number involved this estimate | 31 |
| Actual employment (Sept. 30, 1963) | 2,383 |

### Purpose and Need for Supplemental Funds

An amount of $300,000 is requested to implement the recommendations in the report "Use of Pesticides" which was prepared by the President's Science Advisory Committee.

JUSTIFICATION

This supplemental estimate of $300,000 is to carry out the President's desires to implement the recommendations in the report "Use of Pesticides" which was prepared by his Science Advisory Committee.

*Fishery research, $125,000.*—An amount of $125,000 and 21 permanent positions are requested for accelerated studies of fish-pesticide relationships.

Basic, comparative, acute pesticide toxicity data, under standardized bioassay conditions, will be collected at a more rapid rate. More compounds await testing than have been tested in the last 5 years. Interrelated factors affecting such acute toxicities, including species, size, and condition of test animal; temperature; light; physical and chemical variations of water quality; and kind, formulation, application, duration, and stability of the agent, all must be understood in order to anticipate results of control applications in diverse field environments.

Physiological effects of sublethal exposure to pesticides may well be more important to the welfare of fish populations than are spectacular quick kills. Additional studies will be undertaken to define the importance of chronic dosages on reproduction; growth; and susceptibility to stresses like low oxygen, high temperature, decreased food, and exposure to pollutants, including more or different control chemicals. Evidence of the significance and nature of such effects upon the individual organism, derived from controlled experimentation, are essential to eventual understanding of population effects on a scale too big for laboratory controlled study, but approachable through observations of small, simple microcosms that are established in small ponds and in plastic pools.

Similarly, knowledge is needed of the physiological kinetics of common pesticides—their kinetics, metabolism, mode of action, and the involvement of poorly understood endocrine and intermediary metabolic systems. The surface of these problems will be scratched.

Additional field surveillance of operational control programs and more field testing to confirm laboratory-based hypotheses will be undertaken. Existing facilities must be expanded and improved to accommodate new research units, although certain elements of the work (chemical residue analyses and histopathological examinations of tissues) will be accomplished by increased contract services.

Exploratory research and planning will be initiated to ascertain the feasibility and cost of a cooperative program of monitoring naturally occurring pesticide residues in fishes and associated aquatic organisms. These data would be correlated with waterborne pesticide level data collected by other agencies. Tentatively, this possible future program would be coordinated with the expanded surveillance of specific field control operations and most of the work might be accomplished by contract.

WILDLIFE RESEARCH, $175,000

An amount of $175,000 and 10 permanent positions are requested for accelerated studies of wildlife-pesticide relationships.

Fragmentary evidence demonstrates that pesticide residues are widespread, but no system exists for determining how much of what pesticide is where. Planning and design of a system adequate to measure contamination in wildlife, their food organisms and the environment is an immediate necessity so that an adequate system can be placed in operation soon.

Acceleration of pen and controlled plot studies is essential to permit testing for acute and chronic effects of additional compounds on selected wildlife species. Studies during the last 6 years have included only about 70 compounds; there are at least 20 additional pesticides upon which data are urgently needed now, and many others of somewhat less urgency. Funds include contractural services for determining residue levels in a large backlog of specimens from previous field and pen studies.

*Program and financing*

| | Presently available, 1964 | Revised estimate, 1964 | Increase |
|---|---|---|---|
| Program by activities: | | | |
| Fishery research | $2,052,680 | $2,177,680 | $125,000 |
| Wildlife research | 3,758,825 | 3,933,825 | 175,000 |
| All other activities | 24,748,222 | 24,748,222 | |
| Total program costs, obligations | 30,559,727 | 30,859,727 | 300,000 |
| New obligational authority: | | | |
| Appropriation | 30,589,900 | 30,889,900 | 300,000 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration (75 Stat. 353 and 76 Stat. 728) (−) | −30,173 | −30,173 | |
| Appropriation (adjusted) | 30,559,727 | 30,859,727 | 300,000 |

*Object classification*

| | | Presently available, 1964 | Revised estimate, 1964 | Increase |
|---|---|---|---|---|
| 11 | Personnel compensation: | | | |
| | Permanent positions | $17,056,200 | $17,138,200 | $82,000 |
| | Positions other than permanent | 1,780,100 | 1,784,100 | 4,000 |
| | Other personnel compensation | 385,050 | 385,050 | |
| | Total personnel compensation | 19,221,350 | 19,307,350 | 86,000 |
| 12 | Personnel benefits | 1,493,150 | 1,498,650 | 5,500 |
| 21 | Travel and transportation of persons | 1,430,400 | 1,438,400 | 8,000 |
| 22 | Transportation of things | 192,300 | 193,300 | 1,000 |
| 23 | Rent, communications, and utilities | 621,527 | 622,527 | 1,000 |
| 24 | Printing and reproduction | 226,800 | 226,800 | |
| 25 | Other services | 1,312,600 | 1,444,600 | 132,000 |
| | Services of other agencies | 289,500 | 289,500 | |
| 26 | Supplies and materials | 3,950,700 | 3,960,200 | 9,500 |
| 31 | Equipment | 1,577,600 | 1,599,600 | 22,000 |
| 32 | Lands and structures | 464,300 | 499,300 | 35,000 |
| 42 | Insurance claims and indemnities | 9,700 | 9,700 | |
| 99 | Undercover payments | 15,100 | 15,100 | |
| | Subtotal | 30,805,027 | 31,105,027 | 300,000 |
| | Deduct quarters and subsistence charges | 245,300 | 245,300 | |
| | Total obligations | 30,559,727 | 30,859,727 | 300,000 |

PERSONNEL AND BUDGET INCREASE

Charman HAYDEN. Your budget for fiscal year 1965 proposes a total of $2,872,000, an increase of $1,938,000 over the amount appropriated in fiscal year 1964, and 28 additional personnel. Is it correct that this would give you 142 personnel working on pesticide relationships?

Mr. PARKER. If you do not mind, Mr. Chairman, I would like to submit the statement for the record as to the number that we have now. The increase that you gave is correct; yes.

Chairman HAYDEN. All right; you may do that.

(The statement referred to follows:)

WORKING PERSONNEL

*Statement concerning number of personnel working on pesticides research*

| | 1964 appropriation [1] | 1965 estimate | Increase |
|---|---|---|---|
| Fishery research: Fish-pesticide relationships | 23 | 36 | 13 |
| Wildlife research: Pesticide-wildlife relationships | 64 | 79 | 15 |
| Total | 87 | 115 | 28 |

[1] Does not include increases of 21 for fish-pesticide relationships, 10 for pesticide-wildlife relationships total 31 in 1964 supplemental estimate.

REQUIRED PERSONNEL

Chairman HAYDEN. Is this number of employees necessary to carry on the work which you propose?

Mr. PARKER. There is no question about that. If I might digress a bit, this is part of a Government-wide program of research on pesticides. As you may know, the President's Science Advisory Committee reported in May of last year, indicating recommendations that should be carried out by the Federal agencies. Within our budget of 1965 we are trying to meet those recommendations.

Chairman HAYDEN. Will you expend all of the $934,000 appropriated for this purpose last year?

Mr. PARKER. Yes, sir.

EVALUATING EFFECTS OF NEW CHEMICALS

Chairman HAYDEN. What sort of work is done in this field?

Mr. PARKER. So far the greater effort has been placed on attempting to evaluate the effects of new chemicals on fishes, birds, and mammals. The additional work in the future will emphasize the impact on test species of the chemicals at the various levels. In other words, what does it mean if a pheasant carried 7 parts per million of DDT in its body as contrasted to 24 or 100 parts per million? We need to know what the impact of the chemical on the individual is. We also need to know what the total effect on the environment is. For example, in previous research we have determined that when you use a certain chemical on certain insects, it enters into the soil, is absorbed by the angleworm, a robin comes along and eats the angleworm and dies. This is a very simple case of one of the total environmental impacts and we need to get into this for not only woodcocks and robins but all birds.

Chairman HAYDEN. By all means we must preserve the robins.

DRIFT IN CHEMICAL APPLICATION

Mr. PARKER. Another facet is to have some idea of the amount of chemicals building up in the environment. We know from the studies made so far there is a considerable amount of drift that occurs when the chemicals are applied, particularly from the air. As much as 75 percent of the chemicals will go other places than where we intend them to land because of drifting. We have recovered some ducklings, and have taken soil samples, and vegetation samples in the far northern reaches of Canada, hundreds of miles from the nearest control efforts, and recovered sizable amounts of DDT in the soils,

ducks, and in the vegetation. So we need to do some monitoring. We also need to figure out other ways of approaching the problems of insect control, of noxious weed control and so forth by developing more specific chemicals and methods that would be more pointed at getting to the target organisms rather than a general widespread application.

Chairman HAYDEN. Will you use the increased funds only for intensification of the ongoing program; or do you propose to initiate studies not now underway? If so, please describe them briefly.

Mr. PARKER. We intend to go along increasing our current research as well as the initiation of a monitoring system that I just described. We have not done any of that work as yet.

### COOPERATION WITH OTHER AGENCIES

Chairman HAYDEN. Specifically, how and to what extent do you coordinate your activities along this line with other agencies also involved in the pesticide problem?

Mr. PARKER. Within the Department of the Interior this is done through committees, joint efforts in planning budgets, and in the exchange of information within the Fish and Wildlife Service. It is done with periodic meetings of the research people involved. We put out a joint publication embracing the work done by commercial fisheries, as well as our own Bureau. Within Government, generally, part of this is coordinated through the Federal Pesticide Control Review Board. That Board is primarily concerned with operational programs, but it does get into the exchange of information on research programs. Within Government, the program dealing with research on fish and wildlife is carried out by the Department of Interior. I do not know of any other departments that have programs that would be measuring the effects on fish and wildlife. We are also in the process of developing a review procedure with the Department of the Interior and other agencies, who will participate in the review of applications of new chemicals that are presented to the Department of Agriculture for registration. In other words, we will have a chance to look at the applications and to furnish recommendations to Agriculture concerning the desirability of registering the chemicals.

### AGRICULTURE RESEARCH LABORATORY, FARGO, N. DAK.

Senator YOUNG. Mr. Chairman, if you would yield at this point, the Subcommittee on Agricultural Appropriations, provided funds to build a $2 million research laboratory in Fargo, N. Dak., to find exactly the answers you are concerned about now. Last year we had a very difficult time in even getting part of the funds to staff and equip that laboratory. Have you looked into this?

Mr. PARKER. Senator Young, the information I have read on it indicates that they will be working largely on domestic animals and determining the impact on dairy cattle, hogs, and sheep.

Senator YOUNG. You had better look into it again, because your information is completely wrong.

Mr. PARKER. I will be glad to look into it again.

Senator YOUNG. I wish you would and I wish you would advise that committee to try to get them to staff and equip this.

Mr. PARKER. We very definitely have an interest in this field. I was not aware that there were any other agencies involved in it as far as the Fish and Wildlife are concerned.

I do know that Agriculture was intending to carry on their research in that laboratory pointed at domestic animals.

Senator YOUNG. I wish you would look into that and advise this committee what, if any, duplications are likely.

Mr. PARKER. I will do that.

(The statement referred to follows:)

DISTINGUISHING BETWEEN OBJECTIVES OF THE LABORATORY AND THE PESTICIDE RESEARCH PROGRAM

Both the U.S. Department of Agriculture and the Bureau of Sport Fisheries and Wildlife are conducting research on pesticides. The U.S. Department of Agriculture's program at Fargo, N. Dak., is directed at basic research on metabolism of insects with a view to developing safer, more selective chemicals and other insect controls. Research is directed toward the target organism. The Bureau of Sport Fisheries and Wildlife research is directed at understanding, and thereby possibly circumventing, effects on nontarget organisms of chemicals used or proposed for use as pesticides. The Fargo Laboratory will undoubtedly yield compounds that will require study by the Bureau of Sport Fisheries and Wildlife. There is no overlap between these functions, but close cooperation will be helpful to both organizations. Confusion in the programs of the two organizations apparently resulted from a newspaper article headline; the program objectives outlined by the Agricultural Research Service are quite different than suggested by the newspaper. Following are the newspaper article and a statement of the actual program at Fargo.

[From the Aberdeen American News, Aberdeen, S. Dak., Jan. 12, 1964]

WILDLIFE LAB BEING BUILT ON NDS CAMPUS

FARGO.—Laboratory construction being finished here this winter could answer the literary charge of "The Silent Spring."

Authoress Rachel Carson writes in "The Silent Spring," of the possibility of insecticides and pesticides destroying life slowly but surely.

As if to answer the book published in 1962, the U.S. Department of Agriculture has designed and built a $2 million Laboratory on the North Dakota State campus. The Laboratory when equipped with a staff of 135 persons, will research the metabolism of agricultural chemicals by plants, animals, and insects. Emphasis at the USDA laboratory will be on basic research relating to agricultural chemical hazards and means of avoiding these hazards.

Director of the USDA Metabolism and Radiation Research Laboratory is Dr. Raymond C. Bushland. About the work to be done at the Laboratory, Dr. Bushland says: "Every bit of basic research has to be to attain knowledge that will help us detect potential hazards of new agricultural chemicals and to expedite the development of safer chemicals for use in our agricultural industry."

The Laboratory is not a duplication of the North Dakota agricultural experiment station, Dr. Bushland points out. No dirt specimens from a farmer will be tested, but rather work will be on projects such as use of sterile insects that cause self-destruction by failure to reproduce. Dr. Bushland is internationally known for his work with self-destroying sterile insects. He said such work will probably be started next fall at the laboratories here.

Another scientist, Dr. M. R. Clarkson of USDA's Agricultural Research Service, said the sterile approach is probably the most spectacular now being planned by scientists. There have been encouraging results from first efforts to test the sterility principle against several other important agricultural insects.

In terms of money, the Laboratory's operation will cost about $1,830,000 a year, according to Senator Milton R. Young, Republican, of North Dakota.

Part of this figure will be salaries for the staff which will include 80 scientists, and 55 supervisory staff members, secretaries, clerks, attendants, etc., for a total payroll of 135. Of this staff, 10 Ph. D. scientists with 10 technical assistants will be required for study of the metabolism of agricultural chemicals in plants,

and the same number of personnel for the study of metabolism of agricultural chemicals in animals and insects.

General Services Administration will inspect the complex of laboratory buildings about February 15, Dr. Bushland said. The complex includes the main Laboratory, which is a large E-shaped building with two greenhouses attached, another building primarily for cattle, a small entomology support building and attached greenhouse, plus a building to house shops, garage and heating facilities.

Dr. Bushland noted that it would be about 9 months to a year after the GSA inspection before the complex is completely operational. He said the first basic research projects may be underway by this summer, getting into full operation by next fall.

North Dakota State will feel the impact of the Laboratory complex, Dr. Bushland said. The Laboratory plans to use graduate students as research assistants as well as advanced undergraduate students. Also, the Laboratory will cooperate with NDSU in library facilities and an exchange of information.

STATEMENT CONCERNING AGRICULTURE LABORATORY AT FARGO, N. DAK.

*Fargo, N. Dak., $320,000 (metabolism and radiation research).*—Construction of this laboratory is expected to be completed early in February 1964. Funds in the amount of $680,000 appropriated in fiscal year 1964 have provided for initial staffing including the director, administrative officer, and some of the key scientists and supporting personnel, as well as many major items of equipment. Additional funds are needed to strengthen research to provide basic information that would aid in the development of new, highly selective, and safer chemicals to control pests through studies of metabolism in insects, crops, and livestock; also, to develop improved methods for irradiating insects and to determine the genetic effects of radiation on them. Part of the increase is needed for additional equipment.

These studies would provide information on how pesticides and their identifiable metabolites affect insects and crops, how they are absorbed, transported, and eliminated in plants and animals, and help to determine the complex relationship between the insect, its host and the toxicant.

The insect sterility research would be strengthened by initiating research to develop methods of inducing sterilization on selected insect species by radiation that will avoid loss of sexual vigor and to determine the genetic effects of radiation on insects.

TWO-MAN SUBMARINES

Chairman HAYDEN. I note in the narrative accompanying your fishery research item that you state the Bureau is testing, preparatory to full-scale operation, its two-man submarine. When did you get it and how much did it cost?

Mr. TUNISON. Mr. Chairman, we have two. We purchased them last year. One is located in California and one we are trying to use in a reservoir in Arkansas. This is a picture of what it looks like. It is about 12 feet long, weighs about a ton, and it goes down to about 300 feet and stays there, as I recall, about 10 hours. Now this is an alternate to the use of scuba divers and our men can make much closer and better evaluations of the fish underwater and for a longer time and to do a better job. One of them costs $8,500 and one of them costs $4,400 in round figures. We feel that it is a good device. They have taken some pictures underwater of fish life. Really, the proof of this device will not come for at least another year, but we think it is a good thing. It saves us money, from the standpoint of scuba divers. In fact, they could not go in some of these areas.

Chairman HAYDEN. The real advantage is to be developed?

Mr. TUNISON. Yes, indeed.

Senator MUNDT. How deep can they go?

Mr. TUNISON. 300 feet.

Chairman HAYDEN. What does one of these cost?

Mr. TUNISON. The first one we bought was $4,400. That was an experimental submarine. The second cost $8,500.

Chairman HAYDEN. Where are they made?

Mr. TUNISON. I believe they are made in Chicago.

### MATCHING OF PREDATOR AND RODENT CONTROL FUNDS

Chairman HAYDEN. Is all of the $2,710,000 which you request for control of predatory animals and injurious rodents matched by State or local or private cooperators?

Mr. PARKER. It is matched.

In 1965 we anticipate matching funds of over $4 million.

### BIRD DAMAGE TO AIRCRAFT

Chairman HAYDEN. Is the Bureau of Sport Fisheries and Wildlife still doing research on methods of avoiding bird damage to aircraft? If you are, how much did you expend during fiscal year 1964 and how much do you propose to expend for this type of research in the coming fiscal year?

Mr. PARKER. Much of that work was done under a contract with funds furnished by the FAA and we have now completed the contract so that currently there is very little in the budget. I would have to furnish the exact figure.

Chairman HAYDEN. What have you developed that you think would be helpful in the future in avoiding such accidents?

### AVOIDING FUTURE ACCIDENTS

Mr. PARKER. Much of the efforts have reference to Logan Airport in Boston. There we have come up with the determinations that much of the habitat should be cleaned up, that is, sources of food, the open fish piers, the piggeries, and the garbage dumps that are furnishing food for the gulls, and attracting the birds immediately around the airport. We have hopes that this spring there will be a general meeting of the officials concerned wherein an action program will be developed to alleviate the problems of the gulls up there.

We have, in addition, done some work on the possibility of eliminating weeds and so on that might attract birds around there. We have tested out these frightening devices that we spoke to you about briefly. We are also working on an exchange of information with a Canada bird-aircraft committee. They have similar problems and are primarily trying to develop frightening devices. Our particular part has been aimed at testing distress calls, recording these calls of gulls and then playing them back in problem areas. This has, in many instances, driven the birds off the airports.

We can do pretty well using these distress calls.

### FEDERAL AVIATION AGENCY CONTRIBUTION

Chairman HAYDEN. Is the Federal Aviation Agency contributing to this research and how much is that Agency providing for you?

Mr. PARKER. As I indicated, the contract is wound up now. I would have to furnish, for the record, the total amount of money, if that is all right with you, sir.

Chairman HAYDEN. Yes.

(The statement referred to follows:)

RESEARCH ON BIRD HAZARDS TO AIRCRAFT

National attention was first focused on bird hazards to aircraft following the fatal crash of a commercial airliner at Logan Airport in Boston, Mass., on October 4, 1960. As a result of this accident the Federal Aviation Agency allocated funds to the Bureau of Sport Fisheries and Wildlife for research into the several aspects of the problem. These funds totaled $100,000 in fiscal year 1961, $200,000 in fiscal year 1962, and $190,000 in fiscal year 1963. FAA did not provide funds in fiscal year 1964 and none are anticipated in fiscal year 1965.

The research program was geared to determine the extent and seriousness of bird hazards to aircraft, identification of the species involved, and the development of ways and means of reducing the attractiveness of airports to birds and techniques of dispensing them from sensitive areas. The Bureau's Wildlife Leaflet 429 "Bird Hazard to Aircraft" published in January 1961 provided airport managers with available information concerning habitat manipulation and the use of scare devices as bird deterrents.

Bird strikes caused the death of 17 people and the loss of 2 aircraft in 1962. During the period January 1961 through April 1963, 430 bird-plane strikes were reported. In 135 strikes where bird identification was made, gulls were involved in 50 and waterfowl in 25. Various bird species, numbering 23 during the late fall and 35 during the spring, were identified and considered potentially dangerous to aircraft at Washington National Airport. In all parts of the country the hazard is obviously greatest during the spring and fall migration periods.

Extensive knowledge of the seasonal movements, flight patterns, feeding habits, concentration areas, and other characteristics of problem bird species was summarized and made available to alert aircraft operators and airport managers as to potential danger periods and locations. Through research contracts with the Massachusetts Audubon Society, detailed data were obtained on herring gulls in the Northeast. The findings clearly indicated that this species is frequently attracted to airports by the abundance of food present at nearby dumps, piggeries, sewage outlets, and fish-processing plants. Ecological and direct means of reducing gull populations to tolerable levels were summarized.

In other cases, the attractiveness of airports to species such as blackbirds and starlings has been dramatically reduced through elimination of roosting vegetation such as reeds, trees, and shrubs; by the draining of impoundments which serve as resting places or as sources of drinking water; and by the control of insects and seed-bearing weeds and grasses. Partial success has also been achieved in repelling birds from runways through broadcasting their recorded distress cries, especially when these were used in conjunction with other scare techniques such as shellcrackers and carbide exploders. Intensive search was also made to discover and develop selective lethal agents, antiflying compounds, soporific agents, and chemosterilants for possible use in reducing bird populations at problem sites.

Those facets of the research work which have a relationship to the agricultural damage problems are being continued. The studies which relate only to the aircraft and airport problems have been phased out.

Mr. JANZEN. Mr. Chairman, I might add when we discussed this with the Federal Aviation Agency we more or less tentatively agreed that the Federal Aviation Agency would consider collisions between birds and airplanes after the airplanes had left the airport area as a problem to be solved by the airplane industry, that they were going to have to somehow or other birdproof the airplanes. But at the time of takeoff and landing, when the planes were particularly vulnerable, it would be our problem to make the airport as repellent as possible to the birds and that is why our research has been in that direction.

MOURNING DOVE RESEARCH

Chairman HAYDEN. The question of mourning dove research has come before the committee on prior occasions. I note that you do have research on this bird going on. How much did you allot for this purpose in fiscal year 1964, and how much do you propose to make available during the coming fiscal year?

Mr. PARKER. As I recall, Mr. Chairman, it is $60,000 for dove research and there is no increase in 1965.

Chairman HAYDEN. Do you need any more money than you are getting?

Mr. PARKER. The mourning dove, as you know, is an important game bird, particularly in the southern half of the United States. In 1960 we worked with game and fish commissioners of the States and developed a cooperative program. The Federal part of the program totaled about $225,000, as I recall. If this were updated now, it would be in the neighborhood of $280,000 or $282,000. Currently, we have in the budget, as I indicated, about $60,000. When we started the new program, we put $26,000 in. So, financially speaking, I guess we are still about $250,000 or $256,000 short of meeting the total objectives that were agreed upon back in 1960.

CONTROLLING BLACKBIRDS AND STARLINGS

Chairman HAYDEN. Also, methods of controlling and ridding the country of blackbirds and starlings has been a matter of concern. How much did you expend for this purpose in fiscal year 1964, and how much will be allocated in fiscal year 1965? It may be well for you to submit for the record a statement indicating your activities along this line and setting forth such results as you have obtained.

Mr. PARKER. We will be happy to do that, Mr. Chairman.

(The statement referred to follows:)

1965 BUDGET REQUEST FOR RESEARCH

The fical year 1965 budget request of the Bureau of Sport Fisheries and Wildlife includes $639,000 for research on methods for preventing crop depredations and other losses caused by nuisance and destructive species of birds. This amount represents a $10,000 increase above the fiscal year 1964 budget for pay cost adjustments and permits a continuation of the research program at its present level.

Starlings and blackbirds are the major problem birds in the United States. The several species of blackbirds important in crop depredations are natives; however, the starling is an exotic. Since their introduction in New York's Central Park in 1870, starlings have spread to the Pacific coast and southern Canada. Only small flocks were observed on the west coast during the late 1940's. By 1962 the Western wintering populations numbered in the millions. During winter months the starlings and blackbirds intermingle in tremendous flocks which frequently gather at livestock feedlots. They not only consume great quantities of grain but also contaminate much of the remainder. Their role in the spread of livestock diseases is not completely known, but evidence points to their implication in this regard. At night they often gather in large roosts. Over 200 million were estimated to be present in 227 roosts located during the winter 1961–62. While these are scattered throughout all but the extreme Northern States, the largest winter concentrations are found in the lower Mississippi Valley. When located in forest plantations adjacent to water reservoirs, such as at Hanover and York, Pa., these large flocks set the stage for the contamination to drinking water and the destruction of watershed vegetation. Starling roosts on buildings in towns and cities likewise create health hazards and damage structures.

During spring, summer, and fall months starlings and blackbirds feed upon a wide variety of fruits, vegetables, and cereal grains. Blackbird damage to corn is particularly severe throughout the Middle Atlantic States, the Great Lakes region, and in Florida. Damage which occurs in rice and grain sorghum fields of Arkansas, Mississippi, Texas, and Louisiana is a matter of serious concern. Starling damage to small fruits is increasing rapidly in many parts of the country, particularly in New England, western New York, Michigan, Washington, Arizona, and California. While the total annual loss owing to bird depredations cannot be determined, one survey by the American Farm Bureau Federation estimated that it was in excess of $26 million.

Because of the variety of problems involved, the research program is broadly based. It includes investigations of the basic biology of the birds; the elaboration and improvement of mechanical, sonic, electronic, and chemical repellents; development of selective population reduction measures, such as chemosterilants and lethal agents; and cultural methods of minimizing damage. The biological studies are basic to an understanding of reproduction rates, flocking and feeding habits, daily and seasonal movements, and other traits which reveal the vulnerability of the birds to different control methods. This is illustrated by recent success achieved through the use of strategically placed decoy traps for capturing large numbers of starlings and blackbirds in the vicinity of cherry orchards and rice fields. The presence of live decoy birds in the traps attracts other members of the same species. Progress is also being made in the discovery and development of selective pesticides which possess high avian toxicity but pose little hazard to mammals. These and all other promising research developments for bird control must be thoroughly field tested under a wide variety of conditions to insure safe and effective application techniques before their release to the general public.

Chairman HAYDEN. The starling problem, if I understand it, has spread all over the United States.

Mr. PARKER. It has spread to all of the States, yes, sir.

PESTICIDE-WILDLIFE RESEARCH

Chairman HAYDEN. With regard to pesticide-wildlife relationships for which you ask a total of $1,920,000, you have set forth six different types of work on which the increased expenditures will apply. Would you please supply for the record the total amount that will be available for these six purposes during fiscal year 1965?

Mr. PARKER. I will be glad to.

(The statement referred to follows:)

*Estimate for pesticide-wildlife relationships research*

| Description of work | Available, 1964 | Increase | Estimate, 1965 |
|---|---|---|---|
| Monitoring studies | | $75,000 | $75,000 |
| Evaluation of new pesticides | $30,000 | 250,000 | 280,000 |
| Toxicological and pharmacological studies | 520,000 | 556,000 | 1,076,000 |
| Ecological effects | 112,000 | 227,000 | 339,000 |
| Surveillance of operations | | 100,000 | 100,000 |
| Public information | | 50,000 | 50,000 |
| Total | 662,000 | 1,258,000 | 1,920,000 |

Chairman HAYDEN. Is it proposed that work on these activities will continue indefinitely, or is there any way for you to know how long the work must continue?

Mr. PARKER. I wish I could look ahead so that I could assure you when it will wind up. As long as there are new chemicals developed, and they are being developed in increasing numbers every day, there is still some research going to be necessary. However, I am opti-

mistic to this extent that the industry is now well aware of the impact of the chemicals on fish and wildlife. We have been working with them in developing procedures and test animals that they might work on early in their experiments so that by the time they come to register a chemical, the company itself will have checked out many of the effects that we should know. I am optimistic that in time we are going to be on top of the problem.

Chairman HAYDEN. Are these new fields of research in which the Bureau has not heretofore participated?

Mr. PARKER. We have done very little. We are just starting to get a feel for the possibilities of destroying or eliminating the potential of some of the pesticides. Some very early work was done by our fishery people which indicates the possibility of bacteria breaking down the hydrocarbons in particular, so that it may be possible to clean up some of the habitats using bacteria, for example.

### RESEARCH CONTRACTS

Chairman HAYDEN. Of the amount requested, $675,000 is for research contracts. Would you describe briefly the type of work you propose to accomplish by contract, and indicate in general the terms which will be written into the contracts?

Mr. PARKER. The contracts will be in large measure those which we will ask a laboratory that has facilities to test or determine the amount of pesticides in collected specimens. These are specimens that are picked up as a result of following up on surveillance programs or the long-term studies of the impact of chemicals on fish or wildlife. These are routine tests that we feel could better be done by somebody fitted to do rather than using our scientists and research men to do these service functions that are part of the research program. Now the terms of the contract would be the standard governmental provisions.

### SOUTHEASTERN COOPERATIVE WILDLIFE DISEASE STUDY

Chairman HAYDEN. Last year, Congress provided $200,000 unbudgeted for the southeastern cooperative wildlife disease study at the University of Georgia. Would you please outline for the committee the use to which this money was put, and indicate to the committee the total amount to be available for this purpose in fiscal year 1965?

### CATTLE TICK FEVER AND DEER

Mr. PARKER. The $200,000 was used to enter into three contracts with the University of Georgia Veterinary Medicine Department. One of them is to determine the relationship of the cattle tick fever and deer. In other words, is the deer an alternate host? This is a research project that will be carried out in the Virgin Islands, because as far as we know, fortunately, there are no cattle tick fever ticks in the United States proper at the present time. There is always the danger that the disease may show up again.

LIVESTOCK DISEASE, ANAPLASMOSIS

The other one is a contract dealing with the livestock disease anaplasmosis that some veterinarians think deer are a host to. Both of these contracts were designed to determine what part deer might play in the transmittal of these two diseases. I think it is obvious that if we don't know that deer are important hosts and if these two diseases result in epidemics in the Southeast particularly, there is going to be quite a contest because the deer hunters on one hand will not want to see any deer killed and on the other side the livestock interests will be looking to protect their herds.

What we are trying to establish once and for all is whether or not deer are important alternate hosts of these diseases.

The third contract is the appraisal of the diseases and parasites that game birds might be carrying as they relate to the important ones in poultry.

Chairman HAYDEN. The same amount is available for the next fiscal year?

Mr. PARKER. Yes.

FOREST ANIMAL DAMAGE PROBLEMS

Chairman HAYDEN. What progress are you making on the forest animal damage problem in the Pacific Northwest? It is my understanding that a survey several years ago revealed that animal damage to seeds, seedlings, and saplings amounted to about $15 million annually in that region alone, and we are anxious to see this loss prevented if at all possible.

Mr. PARKER. We have, as you know, been working on rodents, particularly seed-eating rodents, but we have also been studying deer, rabbit, and porcupine damage. We have four compounds currently that are being tested out there that look good. These are compounds that were screened in our Denver laboratory and are now being tested at the tree nursery in Olympia, Wash. So far the trials have not progessed far enough to be able to tell you for sure just how good or when the chemicals will be available for operations, but we are rather optimistic with them. This is a cooperative venture that is being carried out with the U.S. Forest Service, concerning plant aspects as well as the State forest service.

Chairman HAYDEN. Do you think that your present level of research is adequate?

Mr. PARKER. So far all of our efforts have been concerned with problems of the Pacific Northwest. There are animal damage problems in the Lake States, in the Northeast, and in the Southeast. In other words, in all of the forest regions of the country foresters have trouble with seed-eating and other tree-damaging animals.

Chairman HAYDEN. What additional funds do you think you could use advantageously?

Mr. PARKER. About 2 years ago we developed a program in the magnitude of $850,000, but I believe we could adequately, considering personnel available, use in the neighborhood of $320,000, plus 20 scientists and technicians.

### Land Acquisition Program

Chairman Hayden. Do you think that the level of your land acquisition program is adequate?

Mr. Janzen. Mr. Chairman, Congress authorized a $105 million land acquisition for a 7-year period and our $8 million budget for this year does not meet the schedule that has been, of course, proposed for that. But under our limitations, under our fiscal policy, this year, we felt this was as much as we could include in the budget.

Chairman Hayden. In your opinion, what would be an adequate funding level?

Mr. Janzen. If we were to meet the funding level as Congress had requested or authorized us to proceed with, it would have to average $15 million a year for a 7-year period. The first year we did not get any funds, and the second year we got $7 million. Last year we received $10 million, so we are quite a bit behind.

### River Basin Studies

Chairman Hayden. Your justifications indicate that you will require $1,337,000 for river basin studies in fiscal year 1965, and have broken down the description into five phases. Would you please supply for the committee the amounts expended on each of these phases in fiscal year 1964, and the amount which you propose to expend on them in fiscal year 1965?

Mr. Janzen. Yes; we will be glad to do that.

(The statement referred to follows:)

*Available and estimated funds*

| | Available, fiscal year 1964 | Estimate, fiscal year 1965 |
|---|---|---|
| Wetlands preservation program | $300,000 | $305,000 |
| Surveys of water-use projects | 836,000 | 847,000 |
| Small watershed program | 112,000 | 115,000 |
| Urban planning assistance program | 10,000 | 10,000 |
| Followup program | 60,000 | 60,000 |
| Total | 1,318,000 | 1,337,000 |

Chairman Hayden. Would it be agreeable to adjourn now and come back about 2:30?

Senator Byrd. Yes, sir.

Chairman Hayden. How about you?

Senator Young. If I could have about 2 minutes, I think I could finish my questions.

### Wildlife Research Facilities

I note, Mr. Janzen, that you have $140,000 for wildlife research facilities at Jamestown, N. Dak., and Laurel, Md. How much of this is for Jamestown?

Mr. Parker. The construction figure is $100,000 for Jamestown.

Senator Young. Will that complete the construction?

Mr. Parker. No. If I recall correctly, there is need for $75,000 for buildings that are necessary.

Senator YOUNG. In your item for staffing a new Northern Prairie Wildlife Research Center, you have some money for staffing here.

Mr. PARKER. Yes.

Senator YOUNG. How much?

Mr. JANZEN. There is an item of $155,000 to initiate the staffing which will be in connection with the section which has been completed.

TEWAUKON LAKE AREA PROJECT

Senator YOUNG. How much money do you have for this Lake Tewaukon area project?

Mr. PARKER. Construction that you are speaking of, or operations?

Senator YOUNG. It is a refuge and recreation center.

Mr. PARKER. There is $24,800 for the operation and maintenance.

Senator YOUNG. That is for the construction and operation and maintenance?

Mr. PARKER. The last figure I gave you was operations and maintenance. What did you give for construction?

Mr. TUNISON. I said $62,000.

Senator YOUNG. Is that a small building or something?

Mr. PARKER. That is for a new water-control structure, Senator Young. The old dam is about shot and we are afraid it will go out. This will replace that dam.

Senator YOUNG. This is a very popular project you have here. Thank you, Mr. Chairman.

Chairman HAYDEN. We will now recess until 2:30.

(Whereupon, at 12:30 p.m., the committee recessed to reconvene at 2:30 p.m., the same day.)

(AFTERNOON SESSION, 2:30 P.M., THURSDAY, FEBRUARY 27, 1964)

1965 BUDGET ESTIMATE FOR CONSTRUCTION

Senator BIBLE. The subcommittee will come to order. I understand that during the morning session you finished your presentation down to the construction items. Is that correct?

Mr. JANZEN. That is correct.

Senator BIBLE. The budget estimate for 1965 for construction for the Bureau of Sport Fisheries and Wildlife amounts to $3,593,000, $6,633,957 less than the amount appropriated in fiscal year 1964.

The justification will be placed in the record at this point.

(The justification referred to follows:)

HIGHLIGHT STATEMENT

The purpose and long-range objectives of the program for construction are to provide land, buildings, and other facilities for the conservation, management, and investigations of the Nation's sport fish and wildlife resources.

Accomplishments planned for 1964 include new construction and improvements at 17 fish hatcheries; site investigations and preliminary designs for a national fisheries center and aquarium; continued construction at 4 fishery research laboratories, planning for a fish-pesticide laboratory, and site selection and engineering design for a fishery research laboratory at Narragansett Bay, R.I.; construction and development at 13 wildlife refuges; engineering planning at refuges; construction at 2 wildlife research centers; and planning for a new chemical screening center for pesticide research.

The 1965 program provides for replacement of water supply line at Leavenworth, Wash.; plans and specifications for the new National Fisheries Center and Aquarium; first phase construction at a fish-pesticide laboratory in Columbia, Mo.; construction and development of 12 refuges; engineering planning at refuges; continued construction at the Northern Great Plains Research Station in Jamestown, N. Dak.; first phase construction of a pesticide research facility at Denver, Colo.; and plans for a general purpose laboratory-office building at Patuxent, Md.

*Construction*

| | |
|---|---|
| Appropriation 1964 | $5,243,500 |
| Unobligated balance from prior years | +4,983,457 |
| Total available for obligation 1964 | 10,226,957 |
| Decreases: | |
| Fish hatchery facilities | 5,169,772 |
| Fishery research facilities | 867,955 |
| Wildlife refuge facilities | 3,590,119 |
| Wildlife research facilities | 599,111 |
| Total, decreases | 10,226,957 |
| Subtotal | |
| Increases: | |
| Fish hatchery facilities | 650,000 |
| Fishery research facilities | 735,000 |
| Wildlife refuge facilities | 1,468,000 |
| Wildlife research facilities | 740,000 |
| Budget estimate 1965 | 3,593,000 |

*Anaylsis by activities (total funds)*

| Activity and appropriation | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| 1. Sportfish facilities: | | | | |
| Construction | $2,683,725 | $6,037,727 | $1,385,000 | −$4,652,727 |
| Construction of recreational and fish and wildlife facilities, Bureau of Reclamation | 108,440 | 833,039 | 1,290,000 | +456,961 |
| Subtotal | 2,792,165 | 6,870,766 | 2,675,000 | −4,195,766 |
| 2. Wildlife facilities: | | | | |
| Construction | 3,981,206 | 4,189,230 | 2,208,000 | −1,981,230 |
| Construction of recreational and fish and wildlife facilities, Bureau of Reclamation | 272,053 | 1,275,920 | 1,000 | −1,274,920 |
| Subtotal | 4,253,259 | 5,465,150 | 2,209,000 | −3,256,150 |
| Total, direct appropriation | 6,664,931 | 10,226,957 | 3,593,000 | −6 633,957 |
| Other funds | 380,493 | 2,108,959 | 1,291,000 | −817,959 |
| Grand total | 7,045,424 | 12,335,916 | 4,884,000 | −7,451,916 |

*Analysis by activities*

| Activity | Amount available 1964 | Fiscal year 1965 | | | Total available 1965 compared to total available 1964 |
|---|---|---|---|---|---|
| | | Unobligated balances from prior years | Budget estimate | Estimated total available | |
| 1. Sportfish facilities | $6,037,727 | | $1,385,000 | $1,385,000 | −$4,652,727 |
| 2. Wildlife facilities | 4,189,230 | | 2,208,000 | 2,208,000 | −1,981,230 |
| Total | 10,226,957 | | 3,593,000 | 3,593,000 | −6,633,957 |

1. SPORTFISH FACILITIES, $1,385,000

(a) *Fish hatchery facilities, $650,000*

The estimate of $650,000 is for construction as follows:

(1) *Leavenworth, Wash., $150,000.*—This fish hatchery was established in conjunction with Grand Coulee Dam to save and help perpetuate salmon that were forever blocked from their spawning grounds by the dam. It not only saved but substantially increased the sockeye salmon run. With the continuing development of power dams on the Columbia River, the station's activities are now of even greater importance. The hatchery produces sockeye salmon, chinook salmon, kokanee, cutthroat, and rainbow trout. The average annual production of all species averages about 70,000 pounds, approximately 7,725,000 fish. In addition, the need for trout is increasing each year to the point where the station's production is taxed to the limit.

The estimate is for replacement of the station water supply line. This line is a continuous, untreated, wood stave pipe, 25 years old, with a discharge capacity of 18 cubic feet per second, and is in extremely poor condition. Replacement with the proposed larger line will increase the line's capacity to 54 cubic feet per second, increasing the water available for fish production.

(2) *National Fisheries Center and Aquarium, Washington, D.C., $500,000.*—The Administrator of General Services is authorized by the act of October 9, 1962 (16 U.S.C. 1051 et seq.) to plan, construct, and maintain a National Fisheries Center and Aquarium in the District of Columbia for the display of fresh water and marine fisheries and other aquatic resources for educational, recreational, cultural, and scientific purposes, at a cost not to exceed $10 million.

This facility is expected to provide great assistance to the people and the fishing industry in understanding conservation and prudent management of an important natural resource; outstanding opportunities for scientific research and education; and recreation for thousands of tourists as well as the inhabitants of the metropolitan area of Washington, D.C.

In 1964, $260,000 was appropriated for site investigations, test borings for water, surveys of site, and details preliminary for preparation of plans and specifications.

The estimate of $500,000 consists of $450,000 for the use of General Services Administration for architectural services (approximately 5 percent of total estimated cost) which will complete the plans and specifications and $50,000 for the Bureau for assistance to GSA in design of the facilities.

The following is a summary of the construction program:

| Stations | Total cost | Previously appropriated | Estimate 1965 | Required to complete construction |
|---|---|---|---|---|
| Leavenworth, Wash. | $510,000 | ---------- | $150,000 | $360,000 |
| National Fisheries Center and Aquarium, Washington, D.C. | 10,000,000 | $260,000 | 500,000 | 9,240,000 |
| Total | 10,510,000 | 260,000 | 650,000 | 9,600,000 |

(b) *Fishery research facilities, $735,000*

The estimate of $735,000 is for use at Columbia, Mo., for construction of a major new fish-pesticide research laboratory. This includes an office-laboratory of approximately 25,000 square feet, service buildings, and holding and rearing ponds for experimental fishes. In prior years, $100,000 was appropriated for site investigations and design.

2. WILDLIFE FACILITIES, $2,208,000

(a) *Wildlife refuges, $1,468,000*

The estimate of $1,468,000 is for development on 12 national wildlife refuges and advance planning as follows:

| | |
|---|---|
| Refuges: | |
| Havasu Lake, Ariz | $50,000 |
| Kern, Calif | 90,000 |
| Savannah, Ga | 80,000 |
| Quivira, Kans | 140,000 |
| Sabine, La | 117,000 |
| Charles M. Russell, Mont | 240,000 |
| DeSoto, Nebr. and Iowa | 175,000 |
| Tewaukon, N. Dak | 62,000 |
| Ottawa, Ohio | 51,000 |
| Ouray, Utah | 115,000 |
| Missisquoi, Vt | 67,000 |
| Horicon, Wis | 81,000 |
| Total refuges | 1,268,000 |
| Advance planning | 200,000 |
| Total estimate | 1,468,000 |

The estimate will provide—

| | |
|---|---|
| Impoundment facilities | $860,000 |
| Biological facilities | 67,000 |
| Buildings | 135,000 |
| Fencing | 48,000 |
| Roads and trails | 66,000 |
| Recreational development | 92,000 |
| Advance planning and water rights | 200,000 |
| Total | 1,468,000 |

The construction will create operable management units within the refuges. Master plans are the basis for the estimates and engineering studies have been made for all areas cited. Recreational development compatible with wildlife management and consistent with public need is required to implement the authorization in the act of September 28, 1962 (16 U.S.C. 460k et seq.). Additional facilities for compatible public use permitting the enjoyment of the wildlife resource by people is essential due to an increasing annual visitor use which presently exceeds 12 million.

*Havasu Lake, Ariz., $50,000.*—This area is of chief importance as a resting and wintering area for waterfowl, especially the Great Basin Canada goose. It is essential that Topock Marsh be developed to control water levels, land clearing, leveling and installation of irrigation facilities to provide essential food. The estimate will permit land leveling of areas cleared with $33,200 provided in fiscal year 1963. This work is needed to facilitate the growing of browse crops for goose food. Biological studies and engineering feasibility surveys have been made.

*Kern, Calif., $90,000.*—This new refuge in the southern San Joaquin Valley, will restore, in part, the once vast waterfowl and other wildlife habitat destroyed by agricultural development and reclamation of Buena Vista, Kern, Goose, and Tulare Lakes. It will provide the only federally owned waterfowl resting, feeding, and wintering grounds in the Pacific flyway between Merced and Salton Sea for approximately a half million ducks and geese. The development is based on a master plan and will permit completion of an operable unit. New dikes and control structures will create urgently needed waterfowl habitat with Tulare drain water. This is the third phase of the overall development program involving $1,474,700, of which $518,800 has previously been appropriated.

*Savannah, Ga., $80,000.*—Development is based upon master plans totaling $1,039,500, which will greatly improve this area for wintering waterfowl. Much of the marsh area cannot be managed because of lack of dikes, canals, and control structures. The $80,000 estimate for this purpose will be the first of four development phases which will create manageable units.

*Quivira, Kans., $140,000.*—A continuation of work is necessary to complete the third segment for water development. This is essential to support a declaration of taking action in acquisition of certain properties required for development. It is also vital that this area of excellent waterfowl potential be developed to aid in the recovery of waterfowl populations generally. Quivira is the spring stopover of northward bound white-fronted geese and is becoming increasingly valuable from the standpoint of duck nesting and production. An approved master plan shows a total need for $1,275,000. With this amount and the $452,200 previously appropriated, $682,800 remains to complete development.

*Sabine, La., $117,000.*—A master plan has been prepared and serves as the basis for this estimate. Sabine is an important terminal wintering area for ducks and geese, and provision for food and rest areas is essential. Extensive canal dredging and repair, new control structures, and repair of pool three dikes are required as the first phase of development. $680,400 will be required to complete the remaining three phases.

*Charles M. Russell, Mont., $240,000.*—The newly dedicated Charles M. Russell National Wildlife Range, Montana, encompasses 951,062 acres along the Missouri River bottoms and rugged beaches. It provides important breeding habitat for migratory birds including waterfowl, doves, and several endangered or rare species of wildlife. Total development need is planned at $3,900,000. Recent Secretarial action placed this area (the former Fort Peck Game Range) under the primary policy and program direction of this Bureau. The Departmental program for this area stresses road construction, wildlife developments and recreational enjoyment of this scenic and important wildlife range. Initial development for which these funds are requested will provide improved waterfowl production habitat, permit construction of a residence, service building or oil house, and boundary fencing to facilitate grazing administration, all on the first stage of total development.

*DeSoto, Nebr.-Iowa, $175,000.*—This refuge was established in 1958 as a combination waterfowl management and public use area. A master plan has been prepared and total development cost will be $1,606,500. This estimate is for the third phase of work. When it is accomplished, remaining development will require about $1,200,700. Biological development includes clearing and leveling necessary for goose food production. Roads are needed for patrol activities and field access. Recreational development is essential to meet the extremely heavy visitor load, and will include construction of buildings and boating facilities for public use.

*Tewaukon, N. Dak., $62,000.*—A master plan has been prepared for this refuge. Tewaukon is an important duck production and goose concentration refuge and is also important as a public use area in a region of North Dakota where recreational facilities are scarce. The estimate will permit construction of a new water control structure for Lake Tewaukon. This will create additional duck production habitat, and will improve the lake for fishing and other water-related activities. The master plan includes a development program requiring a total of $738,500. When this first phase is carried out, $676,500 will be required for completion of development.

*Ottawa, Ohio, $51,000.*—This is a new refuge established to preserve vital wetlands along Lake Erie which are essential to waterfowl management, particularly for diving duck species in the first phase of a master planned development program. Work involved includes major rehabilitation of dikes on newly acquired lands.

*Ouray, Utah, $115,000.*—The new Ouray Refuge requires intensive water development in the form of dikes and water control structures to provide essential waterfowl habitat. A master plan has been completed which envisions a total cost of $1,300,000. The first phase of development has been started with an appropriation in 1964 of $133,000 for buildings and impoundment facilities. The 1965 estimate will also be utilized for buildings and water development. This area will play a vital role in the production and care of ducks and geese.

*Missisquoi, Vt., $67,000.*—Missisquoi is an important migration and production area for waterfowl but no major development has yet been accomplished.

A dike and control structure are needed to permit management of Big Marsh Slough. This work is based on biological and engineering studies.

*Horicon, Wis., $81,000.*—A master plan has been prepared which programs total development of $498,000. This estimate is for the first phase of work. Dikes, ditches, and control structures to create peripheral subimpoundments are essential to sustain high duck production. Deep plowing and levelling are necessary for food production to accommodate Canada goose concentrations often exceeding 100,000 each spring and fall. When this work is done, $417,000 additional will complete the development.

*Advance planning, $200,000.*—The orderly development of 289 existing National Wildlife Refuges for wildlife conservation, resource utilization, and public recreational enjoyment is dependent upon the program of master planning. Scheduled for accomplishment this year are eight major units of the refuge system, at an estimated cost of $150,000.

With water shortages becoming more prevalent in many sections of the country, there is an acute concern for water rights. It is essential that water rights for each refuge be reviewed, and necessary action be taken to file and obtain additional rights where necessary. Without water, waterfowl and other wildlife management cannot be carried out. $50,000 is estimated for this purpose.

(*b*) *Wildlife research facilities, $740,000*

The estimate of $740,000 is for construction and planning as follows:

*Denver Wildlife Research Center, $600,000.*—This amount is needed to provide laboratory and office space as well as enclosures, pens, and animal shelters for a chemical screening center, for which planning funds in the amount of $50,000 were appropriated in 1964. The primary purpose of the laboratory is to develop selective chemical control methods for nuisance animals so as to enable abatement of damage with minimal hazard to beneficial wildlife and other resource values as well as to carry out basic research on the pesticide wildlife problem. In the latter instance it is necessary to screen potential pesticides for their effects on indicator species of wildlife before they are marketed commercially. In this manner costly development of unacceptable compounds will be avoided and the promotion of selective chemicals will be effected. The facility will be located on the grounds of the Denver Federal Center where associated facilities are already available.

*Northern Prairie Wildlife Research Center, Jamestown, N. Dak., $100,000.*—This amount is needed to construct a residence, a garage-equipment shed, a waterfowl propagation facility, and holding pens, and to provide fences, roads, water supply, and equipment for the central laboratory facility at Jamestown, N. Dak. to enable basic research on factors affecting waterfowl production and means of enhancing wildlife resources in a manner compatible with agriculture and other land use needs.

*Migratory Bird Populations Station, Laurel, Md., $40,000.*—This amount is needed for development of plans and specifications for a general purpose laboratory-office building on the grounds of the Patuxent Wildlife Research Center. The building will house the bird banding records and machine data processing units of the station in proper juxtaposition to insure accessibility of records and efficient work flow. The structure will also provide adequate space for the storage of bird banding records which are accumulating at a rapid rate and which become more valuable as time goes on. Offices will be provided for the scientists who work with this data as well as data obtained from the waterfowl questionnaire survey and the productivity surveys of migratory game birds based on mail receipts of feather specimens. The research carried out by this group provides basic data on population dynamics, mortality rates, and migratory habits as well as management oriented information on the effects of hunting on game populations and the extent to which hunting regulations variations affect the level of the kill.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $6,664,932 | $10,226,957 | $3,593,000 | −$6,633,957 |
| Unobligated balance brought forward | −4,726,089 | −4,983,457 | | 4,983,457 |
| Unobligated balance carried forward | 4,983,457 | | | |
| Appropriation | 6,922,300 | 5,243,500 | 3,593,000 | −1,650,500 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 883,544 | 1,162,000 | 541,000 | −621,000 |
| 12 Personnel benefits | 46,588 | 59,000 | 41,000 | −18,000 |
| 21 Travel and transportation of persons | 123,823 | 138,000 | 52,000 | −86,000 |
| 22 Transportation of things | 6,977 | 13,000 | 2,000 | −11,000 |
| 23 Rent, communications, and utilities | 172,460 | 46,000 | 9,000 | −37,000 |
| 24 Printing and reproduction | 12,457 | 32,000 | 33,000 | 1,000 |
| 25 Other services | 914,777 | 678,000 | 858,000 | 180,000 |
| Services of other agencies | 228,094 | 177,000 | 214,000 | 37,000 |
| 26 Supplies and materials | 374,548 | 353,000 | 82,000 | −271,000 |
| 31 Equipment | 219,257 | 308,000 | 65,000 | −243,000 |
| 32 Lands and structures | 3,681,768 | 7,260,957 | 1,696,000 | −5,564,957 |
| 41 Grants, subsidies, and contributions | | | | |
| 42 Insurance claims and indemnities | 639 | | | |
| Total obligations | 6,664,932 | 10,226,957 | 3,593,000 | −6,633,957 |

CONSTRUCTION WORK TO BE ACCOMPLISHED

Senator BIBLE. Will you please describe briefly the work you propose to accomplish with the construction request?

Mr. TUNISON. We have several items under "Fisheries." Leavenworth (Wash.) station was established about 1941 as a part of the Grand Coulee project. The Leavenworth, Entiat, and Winthrop fish hatcheries were established to take care of the runs that would no longer go above Grand Coulee.

At that time a pipeline was put in from Snow and Nada Lakes to Leavenworth, a wood stave pipe. It has now deteriorated to a point where we need to replace it. That is one item under the hatchery program.

NATIONAL FISHERIES CENTER

We also have under our construction program for hatcheries, $500,000 for design and specifications of the new National Fisheries Center—$450,000 of that will go to General Services Administration for the design work, $50,000 will be used by the Bureau to conduct tests and studies in order that we may advise the architect.

FISH PESTICIDES LABORATORY IN MISSOURI

The largest item is for the fish pesticides lab to be located in Missouri. We have completed the detailed plans. I shall be glad to leave a copy with the committee if they so wish.

Senator BIBLE. It will be received and adopted by reference for the use of the committee.

Mr. TUNISON. Included therein is a breakdown of our cost. The first phase amounts to the $735,000 indicated. We have shown in this three later phases. We may wish to combine those with just one more phase in order to complete this facility as soon as possible.

We would hope that the fiscal policy will enable us to do that next year. That takes care of the fishery construction work in the budget.

### National Wildlife Refuges Improvements

Mr. Parker. On the wildlife side, Mr. Chairman, the construction items call for improvements of 12 of the national wildlife refuges in the amount of $1,468,000. At Havasu in Arizona we are continuing the land leveling and clearing started previously.

At Kern, Calif., we will be constructing new dikes and control structures to develop one of the impoundments there. At Savannah in Georgia, the money will be used to develop dikes and canals and control structures. Likewise at Quivira, Kans. At Sabine in Louisiana we will be doing extensive canal dredging and repair of the control structure for one of the pools there.

### Charles M. Russell Refuge

At the Charles M. Russell in Montana, we will be building a residence, and service building and boundary fence.

Senator Bible. On that point—I am reading from page 106 of the justification—the total estimated cost of Charles M. Russell is $3,900,000. Is that correct?

Mr. Parker. That is correct.

Senator Bible. Is this the first step?

Mr. Parker. There has been work done there previously, prior to the preparation of a master plan. The master plan calls for $3.9 million. The $240,000 is for the first stage of this master plan.

Senator Bible. So at that present level of funding that looks like that is a good 10- or 15-year program.

Mr. Parker. That is right.

Senator Bible. Thank you.

### De Soto, Tewaukon, and Missisquoi Refuges

Mr. Parker. De Soto in Iowa and Nebraska, we are doing land leveling and development of roads.

Tewaukon in North Dakota, there will be the replacement of an existing dam that is about ready to wash out. At Ottawa in Ohio, there will be major rehabilitation of the dikes. At Ouray, Utah, $115,000 is being requested for buildings and the start of some impoundment facilities.

At Missisquoi, Vt., there will be a dike and control structure to permit the management of one of the impoundments. At Horicon the work will also be dikes and ditches. We also have an item of $200,000 for the development of master plans similar to the one I referred to for the Charles M. Russell.

### Wildlife Research Program

In the wildlife research program the big item is $600,000 for a chemical screening lab at Denver. This will be a combination structure, one part of it used to search for chemicals to be used for wildlife purposes, that is management tools such as chemicals to facilitate forestry seeding and so on.

The other part of it will be used to carry out the work of research on the impact of chemicals on birds and animals. Also, we have a $100,000 item in the budget for the Northern Prairie Wildlife Research Station in Jamestown.

Senator BIBLE. At the Denver Wildlife Research Center, will that $600,000 complete the job?

Mr. PARKER. It completes the building. There will be about $100-000 worth of equipment needed. So far as the building itself is concerned, that will complete it.

Senator BIBLE. What was the figure in addition?

Mr. PARKER. $100,000. At the Jamestown station, there is $100,000 for buildings which will pretty well complete the station there. We also request $40,000 of planning money for a proposed building at the Patuxent refuge.

Senator BIBLE. Senator Byrd?

LEETOWN, W. VA. FISH HATCHERY

Senator BYRD. How are you coming along with your fish hatchery at Leetown, W. Va?

Mr. TUNISON. That is a combination station of research, production and training school. We have been helped some here in this last year with the accelerated public works money. The people out there claim that they don't have enough space.

One of our problems of course, is water. Some of their work does not require water, but that is under study at the present time and the feasibility of additional space.

Senator BYRD. What do you have in the budget for Leetown, Bowden, the Elkins fishery management projects and White Sulphur Springs this year?

Mr. TUNISON. Are you speaking now of construction or of management and propagation?

Senator BYRD. I am speaking of both if I might at this point. Let us take Leetown, first.

Mr. TUNISON. The amount of money for research at Leetown is $147,000. For the hatchery work which would include the training is $104,400. Bowden——

SUFFICIENCY OF BUDGET REQUEST

Senator BYRD. Now in connection with these two items is this going to be sufficient?

Mr. TUNISON. I think, Senator, on the management and investigations, yes, both of those will be sufficient for this year.

Senator BYRD. In other words, you could not effectively utilize an increase in the $147,000 item or in the $104,400 item?

Mr. TUNISON. The $104,400 is sufficient at the present time. The problem in the case of research, as Mr. Parker mentioned this morning, is that we are testing some of the chemicals and we have selected Leetown for testing chemicals that we use in treating fish in hatcheries.

Actually it is a national program. We will receive some help from some of the States, but Leetown will be the center of activity. Now in conducting those of course, we are squeezing our production hatchery work.

So, actually I would say that we have enough money with the space that we have. It is not of a type that we can contract out.

CONSTRUCTION REQUEST

Senator BYRD. But you do need additional space.

Mr. TUNISON. We do need additional space.

Senator BYRD. Do I understand you to say there is no construction request for Leetown?

Mr. TUNISON. There is no construction request for Leetown.

Senator BYRD. Were any requests submitted to the Bureau of the Budget?

Mr. TUNISON. No, sir.

Senator BYRD. For Leetown?

Mr. TUNISON. No, sir.

BOWDEN, W. VA., FISH HATCHERY

Senator BYRD. Now the next item was Bowden.

Mr. TUNISON. At Bowden we have $103,600 for the management and investigations and at White Sulphur Springs——

Senator BYRD. While you are at Bowden, when you speak of the management investigation are you speaking of the $30,000 item which we included last year?

Mr. TUNISON. No, sir: this is entirely on the hatchery work.

Senator BYRD. There is no additional construction to be done.

CONSTRUCTION AND LANDSCAPING

Mr. TUNISON. They need a storage building. If you were there recently I think you will recognize that we have not caught up on landscaping yet that we should have there.

Senator BYRD. Would you be prepared to proceed with additional construction if you had the money?

Mr. TUNISON. Yes; we are.

Senator BYRD. Was there any request to the Bureau of the Budget?

Mr. TUNISON. No, sir.

Senator BYRD. What would be the amount needed?

Mr. TUNISON. $34,000.

Senator BYRD. This would permit you to do what?

Mr. TUNISON. Construct the storage building and complete the landscape.

Senator BYRD. How great is the need for each of these two jobs?

Mr. TUNISON. With increased visitor load—we, of course, like other Federal agencies are subject to criticism by the public because of the looks of the place. It is not right to leave the equipment outside. So, the urgency is there and it would be desirable.

Now, naturally, it can be postponed until funds are available.

WHITE SULPHUR SPRINGS, W. VA., FISH HATCHERY

Senator BYRD. The next item was White Sulphur Springs.

Mr. TUNISON. We have $55,400 for management and investigations at White Sulphur Springs and that is ample for the operation of the hatchery.

With the funds that have been provided recently now for construction, we feel as of the present that is completed.

Senator BYRD. Last year the Congress appropriated $100,000 for the rehabilitation of that hatchery.

Mr. TUNISON. That is correct.

Senator BYRD. Will that amount be sufficient to complete the work?

Mr. TUNISON. As far as we now know.

Senator BYRD. As far as you now know?

Mr. TUNISON. As far as we now know.

Senator BYRD. So you need nothing over and above what is in the budget request for White Sulphur Springs?

Mr. TUNISON. That is correct.

ELKINS, W. VA., FISHERY MANAGEMENT PROJECT

Senator BYRD. With respect to the fishery management project which is headquartered in Elkins, I believe.

Mr. TUNISON. That is right, that was initiated last year.

Senator BYRD. With an appropriation of $30,000?

Mr. TUNISON. Yes. We have people on the job and their work is primarily in connection with the Monongahela Forest, also working with the State people on the proper distribution of the hatchery fish and rather shortly we will be starting in a new program in conjunction with other agencies on acid mine drainage.

That may in the long run be one of the most important things that we do.

FISHERY MANAGEMENT PROJECT

Senator BYRD. What do you have in the budget for the continuation of the fishery management project at Elkins?

Mr. TUNISON. That would remain at the same level.

Senator BYRD. $30,000?

Mr. TUNISON. Yes.

Senator BYRD. You have that in the budget?

Mr. TUNISON. That is right.

Senator BYRD. You did not ask for more at the Bureau of the Budget level?

Mr. TUNISON. No, sir.

MINE DRAINAGE PROJECT

Senator BYRD. Do you need additional moneys to carry out the mine drainage project?

Mr. TUNISON. I am not prepared to say at this time, Senator, because, like Bureau of Mines, Geological Survey, it is a larger program. I don't know if that has been reported here at the hearings this year yet or not. So far as we are concerned and with my present knowledge of that program I would say the level at Elkins for our management investigation work there would be ample for this year.

Senator BYRD. You have two personnel engaged in that work?

Mr. TUNISON. That is right.

Senator BYRD. That is sufficient for the time being?

Mr. TUNISON. That is sufficient.

ADDITIONAL FACILITIES IN WEST VIRGINIA

Senator BYRD. You do not feel that any additional construction is needed at the White Sulphur Springs Hatchery?

Mr. TUNISON. No, sir.

Senator BYRD. You don't feel there is any need for the enlargement of the hatchery?

Mr. TUNISON. No, sir. It is a limitation of water supply.

Senator BYRD. Do you feel there is any other location needed for an expansion of the facilities?

Mr. TUNISON. There is that possibility, but back at the time when Bowden was established, we surveyed the State of West Virginia and Bowden was the best site we could find.

I would say that for the present we would not desire to expand into a new hatchery in West Virginia at this time.

Senator BYRD. When was the survey conducted?

Mr. TUNISON. I would say that would be about 1956, possibly 1957.

Senator BYRD. Would you bring the survey up to date and indicate to the committee whether or not as of now there appears to be any need for additional facilities in West Virginia?

Mr. TUNISON. We will be glad to do that.

Senator BYRD. Will you submit for the record a statement as to expenditure capability for each of the hatcheries to which I have alluded?

Mr. TUNISON. We will be glad to do that.

(The statement referred to follows:)

LEETOWN NATIONAL FISH HATCHERY, W. VA.

The Leetown National Fish Hatchery rears brook, brown, and rainbow trout, largemouth bass, and bluegill. These fish are distributed to farm ponds, open State waters, and waters on Federal lands in Delaware, Maryland, Virginia, and West Virginia. The cold-water sport fishery in these States is supported to a large extent by the stocking of hatchery fish.

The current average annual production at this station is 43,000 pounds. With the expansion of the farm pond program, improved fishery management practices, and opening of new waters to public sport fishing, the needs of the area which this station serves will continue to increase.

The Bureau's Eastern Fish Disease Laboratory is headquartered at this station. This Laboratory is operated by the Division of Fishery Research and devotes most of its activities to pathological studies on trout. One of the Bureau's three in-service training schools is located at this station. Each year, employees from National, State, and commercial fish hatcheries, as well as representatives of foreign governments, are selected to participate in these training programs.

In January 1963, $203,000 was made available under the accelerated public works program to rehabilitate and modernize facilities at this station. With these funds it was possible to repair warm-water production facilities, develop a supplemental water supply, and construct buildings required for housing Bureau trainees, for storage of operating equipment, and for the information-education program. This work was completed in December 1963.

Funds are required to enlarge the present hatchery building, or to construct an additional building to provide rearing space for small fish and incubation of eggs. This space has become inadequate as both the research and the production programs have been expanded to meet existing needs.

The cost of this program is $180,000.

Construction funds were not provided in the 1964 fiscal year budget for this hatchery, nor were any included in the 1965 fiscal year budget. The fiscal year 1964 budget does contain $95,400 for the operation of fish-cultural activities of the station. In the fiscal year 1965 budget, as presented to Congress, an increase

of $9,000 was requested. In order to operate the hatchery to capacity, an additional $5,000 would be required. With this increase, the annual production of the station would be increased by 9,000 pounds.

### Bowden National Fish Hatchery, W. Va.

Congress authorized the establishment of the Bowden National Fish Hatchery in 1956 and appropriated $80,000 in fiscal year 1957 to begin construction. It was possible to construct most of the planned facilities for the production units and other physical facilities with additional funds made available in fiscal years 1958 and 1963.

Fish-cultural operations were begun initially in 1960 with the production of 60,000 pounds of brook, brown and rainbow trout. Production has since been expanded to 95,000 pounds of trout annually. The bulk of the production is of catchable-size fish with some fingerlings being provided for farm pond management.

Fish produced at the Bowden hatchery are distributed to waters in southwestern Pennsylvania, western Maryland, and West Virginia under cooperative stocking agreements with these States. These fish are stocked in farm ponds, waters of the Monongahela National Forest and other waters open to public fishing in accordance with cooperative agreements between the States concerned and the Bureau. Heavy fishing pressure throughout the Bowden distribution area coupled with a reduction of productive habitat has created a situation whereby the bulk of the trout fishing is supplied by hatchery-reared fish. Nearly all suitable waters require frequent periodic stocking to maintain adequate sport fishing throughout the normal season. Approximately 60 percent of the cold-water sport fishery in West Virginia is supported by hatchery-produced fish.

This hatchery has become an important segment in the recreation complex of the area. With the construction of a visitor's center, the visitor use of the hatchery for recreation and conservation education is expected to reach 60,000 people per year. As much effort and expense is being expended on outdoor recreation in this part of West Virginia as a means of bolstering economy, increased emphasis on this aspect of hatchery use can be expected.

Construction funds were not provided in the 1964 fiscal year budget for this hatchery, nor were any included in the 1965 fiscal year budget. In fiscal year 1964, $100,600 was provided for the operation of the Bowden hatchery and in fiscal year 1965 the budget provides for an increase of $3,000 which will enable the station to operate at full capacity.

To complete the hatchery as presently planned the following items are needed:

*Construction funds needed for the program*

| | |
|---|---|
| Water infiltration galleries | $10,000 |
| Storage building (equipment) | 10,000 |
| Oil and paint storage building | 2,500 |
| Landscaping and sidewalks | 10,000 |
| Fencing | 2,000 |
| Total cost of the program | 34,500 |

Senator Byrd. Thank you very much. Thank you, Mr. Chairman.

### South Dakota Refuges

Senator Bible. Senator Mundt?

Senator Mundt. With regard to your listing on page 104 of the refuges and operable management units, I would like to inquire as to the status of our South Dakota refuges. Do you have operable management units in each of them now in the master plan which you have prepared?

Mr. Parker. So far as I recall that is right. At the moment I don't have any information that would indicate that they are not.

Senator Mundt. Will you check on that?

Mr. Parker. Yes.

Mr. JANZEN. Do you want that supplied for the record?
Senator MUNDT. To my office, please.
(The statement referred to follows:)

LACREEK REFUGE, BENNETT COUNTY

Lacreek Refuge was established in 1935. It contains 9,442 acres of marsh and rolling short grass prairie in southwestern South Dakota. Eleven impoundments are fed by spring creeks from the adjacent sandhills of Nebraska. Despite its relatively small size, it provides excellent waterfowl habitat. It produces up to 6,500 ducks annually. Trumpeter swans have been reintroduced, and this past summer two pairs nested and successfully raised one young each. This is the first known nesting of this magnificent bird east of the Continental Divide in modern times. Canada goose production also occurred for the first time last summer.

Developments planned will require about $420,000. These include:

| | |
|---|---|
| Dikes and water control structures | $220,000 |
| Biological development | 50,000 |
| Buildings and utilities | 50,000 |
| Roads and fencing | 80,000 |
| Recreational development | 20,000 |
| Total | 420,000 |

Crossdikes and water control structures are needed in the four largest water areas to effect more intensive management for waterfowl production. Biological facilities will include creating 600 potholes, 300 nesting islands, and marsh vegetation control on 400 acres. All of these features will make it possible to produce more waterfowl—ducks, geese, and trumpeter swans. One additional residence, remodeling of an existing residence, one equipment storage building, an oil house, and three small storage buildings are needed for proper refuge administration and maintenance. Five miles of new fence are needed, and rehabilitation of 22 miles are needed to control livestock grazing and facilitate enforcement and management. Improvement of 25 miles of roads, including construction of four bridges, is also needed for administrative and management purposes. Recreational development will include improvement of 3 miles of roads, four picnic sites, one swimming beach, and one boating area.

*Phasing of development funds*

| | |
|---|---|
| 1st year | $101,000 |
| 2d year | 169,000 |
| 3d year | 150,000 |
| Total | 420,000 |

Operation and maintenance will require $47,700 in fiscal year 1965 and increase to $85,000 in future years. The increase is needed for more intensive management of the waterfowl production habitat, and to maintain additional facilities.

LAKE ANDES REFUGE, CHARLES MIX COUNTY

The Lake Andes Refuge was established in south-central South Dakota in 1934. There are 862 acres in fee ownership; the 5,200 acres of water in Lake Andes proper are under easement from the State of South Dakota. The primary purpose it to provide a resting and feeding area for large concentrations of waterfowl, especially diving ducks and geese. An important function too, is the alleviation of depredations which are often associated with full concentrations of up to 20,000 Canada geese and 1 million mallards in the Lake Andes and Fort Randall Reservoir area. Refuge farming is an important factor in depredations control.

Development requirements include $49,000: of this $25,000 is for water facilities, and $15,000 for a small service building and oil house. The $25,000 for water facilities is for a new lining in the artesian well that supplies Owens Bay, the principal area used by wintering waterfowl. All development will be completed in 1 year when funds become available.

Operation and maintenance in fiscal year 1965 will require $21,400 and will increase to $30,000 in future years as the primary program is expanded.

THE POCASSE REFUGE, CAMPBELL COUNTY

The Pocasse Refuge, in north central South Dakota, was established in 1962 on 2,460 acres of Corps of Engineers lands on the Spring Creek arm of the Oahe Reservoir. Establishment was made under the Fish and Wildlife Coordination Act. Effort is being made to acquire an additional 3,200 acres of land under the Coordination Act to complete the refuge. The refuge, when completed, will be of value as a production area for ducks and geese. It will also become an important resting and feeding area for migrant ducks, geese, and sandhill cranes.

Development costs will be approximately $203,000, including: $55,000 for dikes and controls to create small impoundments for waterfowl production purposes; $9,000 for nesting islands and marsh improvement work; $95,000 for two residences, a service building, an equipment storage building, and an oil house; $38,000 for roads and fences to facilitate management and operations; and $6,000 for recreational facilities including a well, bathhouse and entrance road.

*Phasing of development funds*

| | |
|---|---|
| 1st year | $118,000 |
| 2d year | 85,000 |
| Total | 203,000 |

Operation and maintenance in fiscal year 1965 will require $30,400, and increase to $50,000 in future years when land acquisition and development are completed.

SAND LAKE REFUGE, BROWN COUNTY

The Sand Lake Refuge was established in northeastern South Dakota in 1935. It contains 21,451 acres along the James River Valley. There are 10,580 acres of marsh and water in two units; flat, fertile grasslands and agricultural land bound the marsh on two sides.

Sand Lake is an important concentration area for central flyway ducks and geese. It is especially important to the group of small Canada geese known as the Sand Lake goose flock. Special management attention is being given these birds all along their flyway because of the heavy gunning pressure they are subjected to. Fall concentrations of geese include up to 25,000 Canadas and 175,000 snow and blue geese. Spring concentrations exceed 400,000-some years. Waterfowl production is another important function.

The refuge is being utilized as a laboratory in the study of the serious blackbird depredations problem, where damage to corn has been of significant consequence since the area was first settled.

Hunting, and particularly goose hunting, is an important recreational activity on areas adjacent to the refuge, on both private and State managed areas.

Development needs at Sand Lake are $293,000, which includes $60,000 for dikes and water control structures; $54,000 for biological facilities including goose nesting islands, marsh vegetation control, and goose browse production; $151,000 for six residences (all but one of the six existing residences are old farmhouses), an equipment building and a service building; $25,000 for road and fence rehabilitation; and $3,000 for recreational facilities which include a well and parking area.

*Phasing of development funds*

| | |
|---|---|
| 1st year | $100,000 |
| 2d year | 95,000 |
| 3d year | 98,000 |
| Total | 293,000 |

Operation and maintenance will require $54,400 in fiscal year 1965, but will increase to $98,000 in future years. The increase will be needed to expand refuge farming to provide adequate food for the large waterfowl concentrations, and to more intensively manage waterfowl production habitat.

WAUBAY REFUGE, DAY COUNTY

This refuge, containing 4,651 acres in northeastern South Dakota, was established in 1935. Marsh and water areas total 2,000 acres. The upland areas are rolling prairie, containing many small potholes important to waterfowl production. Canada goose and duck production constitute the primary value of this small refuge, but it also provides resting and feeding areas for fall migrants. Annual use totals about 1½ million days for ducks, and 100,000 for geese. Approximately 10,000 people visit the refuge annually for picnicking and wildlife observation.

Development needs are for $124,000, which will provide the following: $61,000 to improve water control on five marsh and water areas; $3,000 for nesting islands and pothole development to further improve production habitat; $10,000 for rehabilitation of the residence and construction of a small garage; and $50,000 for recreational development. The latter will include sanitary facilities, tables and fireplaces at the picnic areas, and a small visitors building.

*Phasing of development funds*

| | |
|---|---|
| 1st year | $74,000 |
| 2d year | 50,000 |
| Total | 124,000 |

Operation and maintenance activities will require $24,000 in fiscal year 1965, but increase to $30,000 in future years with more intensive management of waterfowl production habitat.

WATERFOWL PRODUCTION AREAS

Senator MUNDT. On page 44 you have a listing under point 3 dealing with the expansion of the management program for water fowl production areas, including South Dakota. I wonder if that fits in with the financial program as you start out on page 50.

Mr. PARKER. This particular item, Senator Mundt, relates to management of the small areas that we are purchasing and leasing. This is a case of arranging for local landowners to graze the areas, maintain the fences and signs and so on.

It is a management man with a fencing crew that visits each of these particular areas.

Senator MUNDT. You lease from the farmer and he leaves part of the grain intact?

Mr. PARKER. No, sir, this for management of the small wetlands which we have acquired or leased throughout the counties. Those we own we fence and post.

GAVINS POINT, MCNENNY AND SPEARFISH, SOUTH DAKOTA FISH HATCHERIES

Senator MUNDT. As regards the three hatcheries listed on page 17, Gavins Point, McNenny and Spearfish, do you feel that the amount of money which you have budgeted is adequate to do the job in those three fish hatcheries?

Mr. TUNISON. I think that is right, they are adequate. As you know, McNenny and Spearfish are operated as one unit. I believe with the water supply there we are operating at just about full capacity.

In case of Gavins that is relatively new, as you know, and I believe that with the funds that we now have and with the requirements those funds are adequate.

Senator MUNDT. Well, the Gavins Point Hatchery has to serve a tremendous amount of that river reservoir work. I notice that the $5,000 increase you provide still leaves it $9,000 short of capacity. I doubt whether even at capacity it is going to quite meet the fishing pressure which has developed in the area.

I was wondering if there was any valid reason that you knew of why we could not put this thing on a full-scale operation at this time provided the $9,000 was made available.

Mr. TUNISON. We could use the $9,000, yes, advantageously and put it in full-scale operation.

Senator MUNDT. That would operate it at the level at which it was intended?

Mr. TUNISON. Yes, sir.

Senator MUNDT. You could not expand beyond that without expanding the facilities?

Mr. TUNISON. That is correct, Senator.

BEULAH, WYO., LABORATORY

Senator MUNDT. What is your plan up there, you still call it Beulah, Wyo.? Are you going to do a little fish hatchery work in that connection, replenishing the stream or will it be a matter of genetics?

Mr. TUNISON. There will be fish available for distribution but it will be a byproduct of the research. Now, to what extent that will develop at the moment I am not prepared to say. I would anticipate that it may run as high eventually as perhaps 25,000 pounds a year.

As I say, it would be secondary to the research and as a byproduct.

Senator MUNDT. Thank you.

TRANSFER FUNDS

Senator BIBLE. Mr. Janzen, I don't know whether this question is yours or Mr. Tunison's. On page 100 of the justification you show an item of $1,291,000 in fiscal year 1965 designated as "Other funds." Just what are those funds and from where do they come?

Mr. CORBIN. Those are funds for the Colorado River storage project which come from the reclamation appropriation by transfer.

Senator BIBLE. These are transferred from the reclamation fund for the development of the Colorado River storage project?

Mr. CORBIN. That is right, sir.

Senator BIBLE. I was interested in the source of them. This will be shown as a transfer, we will take it, from the public works appropriation bill, is that correct?

Mr. CORBIN. Yes.

PROGRESS ON ADDITIONAL CONSTRUCTION ITEMS

Senator BIBLE. Now, I think it might be well for you to submit for the record a statement as to the progress which you have made with each of the additional nonbudgeted construction items provided last year by the Congress. Senator Byrd asked you about some of the West Virginia items. I refer to amendment No. 35 that was adopted in conference on the Interior appropriation bill last year.

It is page 10 in the conference report and shows the items that were added by the House. Will you simply give us a statement as to the progress you have made on those various items and submit it for the record?

Mr. TUNISON. We will be glad to.

(The statement referred to follows:)

1964 CONSTRUCTION ACCOMPLISHMENTS

*1. Acquiring a surplus vessel for the Sandy Hook Marine Laboratory, New Jersey, $80,000.*

The LT-1959 has been obtained on indefinite loan from the Army. It is a steel-hulled, seagoing tug, 400 gross tons, 107 feet in length, with a 1,200-horsepower engine. Built in 1957, it has never been used. It can cruise at 12 knots and stay at sea for 2 or 3 weeks.

Reactivation and fitting it for ocean research will proceed in two stages. Plans, specifications, and estimates for reactivation have been completed and the contract for this work will be awarded and administered by the Army. The second stage will follow immediately thereafter and we expect that a contract for this stage will be awarded before July 1, 1964.

*2. Additional facilities, Fish Control Laboratory, Warm Springs, Ga., $72,000.*

About $8,000 of the total has been obligated for engineering and related costs and contracts will be awarded within the next 2 or 3 months for piping the supplemental water supply from a spring; for constructing covered outdoor concrete fish holding troughs and runoff diversion structures; and for slope stabilization, protective fencing and grading.

*3. Surveys, plans, water supply, and building repair at the fish genetics facility, Beulah, Wyo., $115,000.*

These funds have been obligated: force-account rehabilitation of garage apartment ($11,000); A. & E. design contract with Banner & Associates, Inc., Laramie, Wyo., and Brookings, S. Dak. ($60,000); and regional engineering services ($7,000). It is anticipated that the remaining available funds ($37,000) will be obligated during fiscal year 1964 for urgent repairs to the existing structures and limited remodeling of facilities to permit some preliminary investigational and specific planning activities in fiscal year 1965.

*4. Impoundment facilities, Ouray National Wildlife Refuge, Utah, $133,000.*

These funds are being utilized as follows: two residences, $40,000; dikes and water control structures, $82,000; land clearing, irrigation canals, landscaping, utilities, $11,000. The plans for the residences were 70 percent complete as of January 31, 1964. It is anticipated that a contract will be awarded in May of this year. Fieldwork to obtain the data needed for earthmoving contracts for dikes, land clearing, canals, and landscaping is now being accomplished. Contracts will be awarded by June 30, 1964.

*5. Construction at the following national fish hatcheries, $1,165,500:*

*(a) Warm Springs, Ga., $116,500.*—$3,846 obligated for engineering work in preparation of detailed plans and specifications. Bids will be solicited on April 15 and work will begin about June 15. Contract will include fish holding house, storage building, residence, fertilizer house, fences and roads.

*(b) Garrison Dam, N. Dak., $90,000.*—The entire amount has been obligated. Funds were used to complete items which could not have been undertaken in previous years because of excess costs for excavation of pond area. Work completed in October 1963.

*(c) White Sulphur Springs, W. Va., $100,000.*—$10,135 obligated for engineering and contract awarded November 8, 1963, for development of supplemental water supply. Balance of funds will be obligated for engineering and contract to replace existing raceways. Work will start in April and be completed in October 1964.

(*d*) *Hagerman, Idaho, $105,000.*—$10,789 obligated for preparation of engineering plans and specifications. Bid solicitation is scheduled for April on contract to construct raceways and provide water supply and drainage lines. Work to be finished in October 1964.

(*e*) *Ennis, Mont., $113,000.*—$94,475 obligated to date for engineering costs of preparing plans and specifications and for contracts covering residence construction, other buildings, and facilities. Balance of funds to be used to complete development and for engineering inspection. Work to be completed in April 1964.

(*f*) *Greers Ferry Dam, Ark., $188,000.*—Bid solicitation scheduled for April 1964 on contract for raceways, buildings, and domestic water well. Design completed and preliminary plans approved by the Washington office. Work is scheduled to start in June and will be completed in May 1965.

(*g*) *Lyman, Miss., $104,000.*—Contract awarded February 17, 1964 ($146,407, included carryover funds from fiscal year 1963) for pumping unit, pond water supply and drain lines, and new earthen ponds, and other work. Balance of 1964 funds to be obligated for contract to construct residence and provide domestic water supply and sewage disposal system and for engineering inspection. All work scheduled for completion in November 1964.

(*h*) *Cheraw, S.C., $159,000.*—$926 obligated to date for engineering costs of preparing plans and specifications. Bid solicitation on contract is scheduled for March 15. This to include repair and reworking ponds, supply and drain lines, residences, domestic water supply, and sewage disposal. All work is scheduled for completion by January 1965.

(*i*) *Mescalero, N. Mex., $190,000.*—$10,000 obligated to date for engineering work, including surveys, plans, and specifications. Lease agreement for site and water supplies between Mescalero Tribe and Bureau of Sport Fisheries and Wildlife approved by Solicitor February 28. Bid solicitation on contract for construction of hatchery facilities is scheduled for April. All work under this contract is scheduled for completion in March 1965.

ACCELERATED PUBLIC WORKS PROJECTS

Senator BIBLE. Also submit for the record a statement showing Accelerated Public Works projects constructed by the Bureau of Sports Fisheries and Wildlife, indicating the type of project and location, and if the cost was not entirely Federal, show the amount and source of the non-Federal contribution.

Will you submit for the record a statement showing all of them which have been accomplished through the Accelerated Public Works program.

Mr. TUNISON. We will be glad to do that.

(The statement referred to follows:)

*Accelerated public works program*

SUPPLEMENTAL APPROPRIATION ACT 1963

| State and project | Eligible area and county | Eligibility category | Man-years | Cost | Work description |
|---|---|---|---|---|---|
| | | | | *Thousands* | |
| Alabama: | | | | | |
| Marion National Fish Hatchery | Perry County | 5b | 4.0 | $40 | Forest preservation. |
| Choctaw National Wildlife Refuge | Choctaw County | 5b | 4.0 | 37 | Do. |
| Wheeler National Wildlife Refuge | Limestone County | 5b | 10.0 | 102 | Do. |
| Arkansas: | | | | | |
| White River National Wildlife Refuge | Desha County | 5b | 9.0 | 90 | Do. |
| Do | Phillips County | 5b | 9.0 | 90 | Do. |
| Florida: St. Marks National Wildlife Refuge | Jefferson County | 5b | 19.0 | 190 | Do. |
| Georgia: | | | | | |
| Blackbeard National Wildlife Refuge | McIntosh County | 5b | 4.0 | 40 | Do. |
| Harris Neck National Wildlife Refuge | do | 5b | 3.0 | 28 | Do. |
| Piedmont National Wildlife Refuge | Jasper County | 5b | 9.0 | 92 | Do. |
| Illinois: | | | | | |
| Crab Orchard National Wildlife Refuge | Herrin-Murphysboro-West Frankfort, Williamson County, | 5a | 17.0 | 172 | Do. |
| Do | Herrin-Murphysboro-West Frankfort, Union County, | 5a | 1.0 | 8 | Do. |
| Kentucky: | | | | | |
| Kentucky Woodlands National Wildlife Refuge, | Hopkinsville, Trigg County | 5a | 5.0 | 50 | Do. |
| Do | Lyon County | 5a | 5.0 | 50 | Do. |
| Reelfoot National Wildlife Refuge | Fulton County | 5b | .5 | 5 | Do. |
| Louisiana: Catahoula National Wildlife Refuge | Jena, LaSalle County | LS | 5.0 | 50 | Do. |
| Maine: | | | | | |
| Craig Brook National Fish Hatchery | Hancock County | 5b | 2.0 | 20 | Do. |
| Moosehorn National Wildlife Refuge | Washington County | 5b | 28.0 | 285 | Do. |
| Maryland: Blackwater National Wildlife Refuge | Cambridge, Dorchester County, | 5a | 15.0 | 150 | Do. |
| Michigan: Seney National Wildlife Refuge | Escanaba, Schoolcraft County. | 5a | 8.0 | 80 | Do. |
| Minnesota: | | | | | |
| Agassiz National Wildlife Refuge | Warren, Marshall County | LS | 6.0 | 59 | Do. |
| Rice Lake National Wildlife Refuge | Aitkin County | 5b | 11.0 | 111 | Do. |
| Tamarac National Wildlife Refuge | Becker County | 5b | 10.0 | 102 | Do. |
| Missouri: Mingo National Wildlife Refuge | Wayne County | 5b | 12.0 | 125 | Do. |
| Montana: | | | | | |
| National Bison Range | Sanders County | 5b | 2.5 | 25 | Do. |
| Do | Lake County | 5b | 2.5 | 25 | Do. |
| North Carolina: Mattamuskeet National Wildlife Refuge. | Hyde County | 5b | 6.5 | 65 | Do. |

| | | | | | |
|---|---|---|---|---|---|
| Pennsylvania: | | | | | |
| Erie National Wildlife Refuge | Crawford County | 5b | 5.0 | 50 | Do. |
| Lamar National Fish Hatchery | Clinton County | 5b | 1.5 | 15 | Do. |
| South Carolina: | | | | | |
| Carolina Sandhills National Wildlife Refuge | Chesterfield County | 5b | 49.0 | 490 | Do. |
| Santee National Wildlife Refuge | Clarendon County | 5b | 14.0 | 176 | Do. |
| Tennessee: | | | | | |
| Tennessee National Wildlife Refuge | Humphreys County | 5b | 6.0 | 60 | Do. |
| Do | Benton County | 5b | 2.5 | 25 | Do. |
| Do | Henry County | 5b | 6.0 | 60 | Do. |
| Do | Decatur County | 5b | 1.0 | 10 | Do. |
| Reelfoot National Wildlife Refuge | Lake County | 5b | 2.0 | 15 | Do. |
| Do | Obion County | 5b | 2.0 | 15 | Do. |
| Washington: Willapa National Wildlife Refuge | Pacific County | 5b | 12.0 | 100 | Do. |
| Wisconsin: Necedah National Wildlife Refuge | Juneau County | 5b | 10.0 | 93 | Do. |
| Total, direct Federal | | | 319.0 | 3,200 | |
| Grants-in-aid programs: | | | | | |
| Alabama | All eligible areas | All categories with special emphasis on 5b areas. | | 14 | Fish and wildlife facilities. |
| Arizona | do | do | | 27 | Do. |
| Arkansas | do | do | | 280 | Do. |
| California | do | do | | 163 | Do. |
| Colorado | do | do | | 73 | Do. |
| Connecticut | do | do | | 16 | Do. |
| Delaware | do | do | | 76 | Do. |
| Florida | do | do | | 276 | Do. |
| Georgia | do | do | | 3 | Do. |
| Hawaii | do | do | | 1 | Do. |
| Idaho | do | do | | 65 | Do. |
| Illinois | do | do | | 187 | Do. |
| Indiana | do | do | | 69 | Do. |
| Iowa | do | do | | 6 | Do. |
| Kentucky | do | do | | 584 | Do. |
| Louisiana | do | do | | 179 | Do. |
| Maine | do | do | | 222 | Do. |
| Maryland | do | do | | 25 | Do. |
| Massachusetts | do | do | | 79 | Do. |
| Michigan | do | do | | 921 | Do. |
| Minnesota | do | do | | 270 | Do. |
| Missouri | do | do | | 9 | Do. |
| Nebraska | do | do | | 1 | Do. |
| New Hampshire | do | do | | 34 | Do. |
| New Jersey | do | do | | 71 | Do. |
| New Mexico | do | do | | 53 | Do. |
| New York | do | do | | 300 | Do. |
| North Carolina | do | do | | 51 | Do. |
| North Dakota | do | do | | 21 | Do. |
| Ohio | do | do | | 365 | Do. |
| Oklahoma | do | do | | 104 | Do. |
| Pennsylvania | do | do | | 357 | Do. |
| South Carolina | do | do | | 472 | Do. |

*Accelerated public works program*—Continued

| State and project | Eligible area and county | Eligibility category | Man-years | Cost | Work description |
|---|---|---|---|---|---|
| | | | | *Thousands* | |
| Grants-in-aid programs:—Continued | | | | | |
| Utah | All eligible areas | All categoeris with special emphasis on 5b areas. | | 107 | Fish and wildlife facilities. |
| Vermont | do | do | | 26 | |
| Washington | do | do | | 90 | Do. |
| West Virginia | do | do | | 196 | Do. |
| Wisconsin | do | do | | 128 | Do. |
| Wyoming | do | do | | 34 | Do. |
| Territories: | | | | | Do. |
| Guam | do | do | | 20 | |
| Virgin Islands | do | do | | 25 | Do. |
| | | | | | Do. |
| Total, grants-in-aid program | | | 1,200.0 | [1] 6,000 | |
| Total, Bureau of Sport Fisheries and Wildlife | | | 1,519.0 | 9,200 | |
| Total, Department of the Interior | | | 3,433.6 | 25,000 | |

[1] States contributed 50 percent of their own funds in most instances, but in some cases the State contribution was 42, 34, or 25 percent depending on the severity of depression in the area. Thus the total cost of this portion of the program exceeded $12,000,000.

FISCAL YEAR 1963 (FIRST APPROPRIATION)

| | | | | | |
|---|---|---|---|---|---|
| Alaska: Kenai National Moose Range | Kenai-Cook Inlet election district No. 12. | 5b | 17.0 | 200 | Recreational facilities and conservation measures. |
| California: Modoc National Wildlife Refuge | Modoc County | 5b | 8.0 | 83 | Wildlife facilities. |
| Illinois: | | | | | |
| Crab Orchard National Wildlife Refuge | Herrin-Murphysboro-West Frankfort; Jackson, Union, and Williamson Counties. | 5a | 40.0 | 400 | Recreational facilities and conservation measures. |
| Mark Twain National Wildlife Refuge | Calhoun County | 5b | 10.0 | 100 | Wildlife facilities and conservation measures. |
| Do | Jersey County | 5b | 7.0 | 70 | Do. |
| Do | Mercer County | 5b | 1.0 | 10 | Do. |
| Kentucky: Kentucky Woodlands National Wildlife Refuge. | Lyon County | 5b | 29.0 | 294 | Wildlife facilities, conservation measures, and recreational facilities. |
| Maine: | | | | | |
| Craig Brook National Fish Hatchery | Hancock County | 5b | 10.0 | 121 | Buildings, water supply lines, roads, landscaping, and recreational facilities. |
| Moosehorn National Wildlife Refuge | Washington County | 5b | 36.0 | 360 | Recreational facilities and conservation measures. |

| | | | | | |
|---|---|---|---|---|---|
| Maryland: | | | | | |
| Blackwater National Wildlife Refuge | Cambridge, Dorchester County. | 5a | 28.0 | 275 | Recreational facilities, conservation measures, and complete dike under construction and recreational development. |
| Glen Martin National Wildlife Refuge | Somerset County | 5b | 8.0 | 80 | Wildlife facilities and conservation measures. |
| Michigan: | | | | | |
| Hiawatha National Fish Hatchery | Chippewa County | 5b | 10.0 | 105 | Construct buildings, bottoms in raceways, utility lines, roads and parking areas, and recreational facilities. |
| Jordan River National Fish Hatchery | Antrim County | 5b | 31.0 | 400 | Construct concrete raceways, supply and drain lines, raceway roofs, roads, picnic areas, landscaping and fencing. |
| Seney National Wildlife Refuge | Escanaba, Schoolcraft County. | 5a | 25.0 | 250 | Recreational facilities and conservation measures. |
| Minnesota: | | | | | |
| Agassiz National Wildlife Refuge | Marshall County | 5b | 4.0 | 39 | Wildlife facilities. |
| Rice Lake National Wildlife Refuge | Brainerd-Grand, Aitken County. | 5a | 20.0 | 175 | Recreational facilities and conservation measures. |
| Mississippi: | | | | | |
| Noxubee National Wildlife Refuge | Noxubee County | 5b | 15.0 | 150 | Wildlife facilities, conservation measures, and recreational development. |
| Do | Oktibbeha | 5b | 25.0 | 247 | |
| Montana: | | | | | |
| Lake Mason National Wildlife Refuge | Roundup Mussellshell County | Substantial unemployment | 4.0 | 40 | Digging wells, fencing, and reposting, ditch cleaning, repair water control structures, and shelter belt preparation. |
| National Bison Range | Sanders and Lake Counties | 5b | 10.0 | 100 | Recreational facilities and conservation measures. |
| North Carolina: | | | | | |
| Mattamuskeet National Wildlife Refuge | Hyde County | 5b | 16.0 | 156 | Wildlife facilities, building construction and rehabilitation, roads, bridge and fence repairs, brush control, drainage, improvement, soil building, and forest stand improvement. |
| Oklahoma: | | | | | |
| Tishomingo National Wildlife Refuge | Johnston and Marshall County. | 5b | 5.0 | 53 | Wildlife facilities, conservation measures, and recreational development. |
| Tishomingo National Fish Hatchery | Johnston County | 5b | 10.0 | 141 | Subdivide ponds, outlet structures, replace and repair buildings, curbs and road surfacing, fencing, recreational facilities. |
| Washita National Wildlife Refuge | Custer County | LS | 9.0 | 89 | Wildlife facilities. |
| Pennsylvania: | | | | | |
| Erie National Wildlife Refuge | Meadville, Crawford County. | 5a | 8.0 | 70 | Recreational facilities and conservation measures. |
| Lamar (Tylersville) National Fish Hatchery | Clinton County | 5b | 15.0 | 200 | Construct concrete raceways, water supply line, warm-water ponds, retaining structures, spring intake, recreational facilities. |

29-120—64—55

*Accelerated public works program*—Continued

| State and project | Eligible area and county | Eligibility category | Man-years | Cost | Work description |
|---|---|---|---|---|---|
| | | | | *Thousands* | |
| West Virginia: Leetown National Fish Hatchery | Martinsburg, Jefferson County. | Substantial unemployment | 15.0 | 203 | Construct buildings, regrade ponds, rebuild catch basins, develop water supply, fire suppression system, and recreational facilities. |
| Total, Bureau of Sport Fisheries and Wildlife, direct Federal. | | | 416.0 | 4,411 | |
| Grants-in-aid program: | | | | | |
| Alabama | All eligible areas | All categories with special emphasis on 5b areas. | | 216 | Fish and wildlife facilities. |
| Arkansas | do | do | | 379 | Do. |
| California | do | do | | 246 | Do. |
| Colorado | do | do | | 71 | Do. |
| Connecticut | do | do | | 101 | Do. |
| Delaware | do | do | | 34 | Do. |
| Florida | do | do | | 197 | Do. |
| Georgia | do | do | | 60 | Do. |
| Hawaii | do | do | | 3 | Do. |
| Idaho | do | do | | 86 | Do. |
| Illinois | do | do | | 590 | Do. |
| Indiana | do | do | | 24 | Do. |
| Kentucky | do | do | | 598 | Do. |
| Louisiana | do | do | | 392 | Do. |
| Maine | do | do | | 45 | Do. |
| Maryland | do | do | | 24 | Do. |
| Massachusetts | do | do | | 67 | Do. |
| Michigan | do | do | | 790 | Do. |
| Minnesota | do | do | | 175 | Do. |
| Missouri | do | do | | 95 | Do. |
| Nebraska | do | do | | 23 | Do. |
| Nevada | do | do | | 75 | Do. |
| New Mexico | do | do | | 131 | Do. |
| New York | do | do | | 298 | Do. |
| North Carolina | do | do | | 88 | Do. |
| North Dakota | do | do | | 7 | Do. |
| Oklahoma | do | do | | 112 | Do. |
| South Carolina | do | do | | 508 | Do. |
| Tennessee | do | do | | 135 | Do. |
| Utah | do | do | | 73 | Do. |
| Vermont | do | do | | 18 | Do. |
| Virginia | do | do | | 89 | Do. |

| | | | | | |
|---|---|---|---|---|---|
| Washington | do. | do. | | 79 | Do. |
| Wisconsin | do. | do. | | 161 | Do. |
| Wyoming | do. | do. | | 32 | Do. |
| Territories: Puerto Rico | do. | do. | | 179 | Do. |
| Reserve | | | | 22 | |
| Total, Bureau of Sport Fisheries and Wildlife, grants-in-aid program. | | | 1,364 | [1] 6,223 | |
| Total, Bureau of Sport Fisheries and Wildlife. | | | 1,780 | 10,634 | |

[1] The States contributed at least 50 percent of their own funds in each case. Thus total value of work to be accomplished was at least $12,446,000,000.

REESTABLISHMENT OF PYRAMID LAKE FISHERY

Senator BIBLE. I have one further question. Maybe this is yours, Mr. Tunison, or yours, Mr. Janzen. What is the status of your study of the lower Truckee River looking to reestablishment of the Pyramid Lake fishery?

Mr. TUNISON. That is in connection with the Washoe project?

Senator BIBLE. Yes.

Mr. MCBROOM. Mr. Chairman, we are working very closely with the California-Nevada Compact Commission on that subject right now. We are attempting to have the commission recognize or bring to the attention of the commission the importance of providing water for Pyramid Lake in connection with their deliberations. We are hopeful we can work it out.

Senator BIBLE. Do you have any idea of the timetable on it? We are under certain pressures in western Nevada on the Washima Reservoir and Stampede Reservoir, all in connection with the Washoe project, on the evaluation and reexamination of the Pyramid Lake fishery. Do you know when your studies will be completed?

COMPACT COMMISSION NEGOTIATIONS

Mr. MCBROOM. A year I would say. I want to point out that the success of what we might do in Pyramid Lake at this point hinges on the outcome of our negotiations with the compact commission.

Senator BIBLE. I understand, you have to have a guarantee of a certain amount of water available to you?

Mr. MCBROOM. That is the idea. We don't have any control whatever over the progress of the commission's deliberations.

Sentaor BIBLE. This I understand.

Mr. MCBROOM. Then you realize it will have to come here to the Congress for consent legislation.

Senator BIBLE. I am aware of that part of the compact. You say it would be within a year?

Mr. MCBROOM. I would estimate that. I am speculating. I am talking about a commission that is entirely independent.

Senator BIBLE. We hope that they can resolve most of their interstate problems as between California and Nevada at Truckee but I recognize there are some problems there.

Mr. MCBROOM. I might say this, Mr. Chairman. The Reclamation Act of 1902 of course, requires that these matters be undertaken pursuant to State water laws. Unfortuntely, the Nevada State water law does not give a very good shake to fish and wildlife.

Senator BIBLE. I hope that you will pursue that as vigorously as you can and we will be talking with you from time to time because we must make some accelerated progress.

Mr. MCBROOM. We will. We are working with the Bureau of Indian Affairs as well as the Bureau of Reclamation.

COOPERATIVE FISHERY UNIT FOR SOUTH DAKOTA

Senator MUNDT. I have a few questions, some of which pertain to South Dakota and some handed to me by my colleague who could not be here. This you could do by sending my office a rundown on the

work done at Pierre on the sports fisheries and management program listed on page 25.

On the same pages 25 and 26 you list the cooperative fisheries units and I have received a number of letters of inquiry in the last few months from people in South Dakota communities who feel they might like to participate in this program.

Will you give me an idea of the funds required if the committee were to decide to establish such a unit in South Dakota in fiscal 1965?

Mr. TUNISON. I will be glad to do that, Senator. You will notice on pages 25 and 26 the appropriation requested is $30,000. This program is very new and it was estimated that $30,000 would cover it.

STUDENT PROGRAM PARTICIPATION

In response to your question this $30,000 does not recognize the recent pay act cost and we have also learned more and more of the students will not participate in some of these programs unless we are able to give them a fellowship of some kind.

So at the present time, we are estimating that for a sound program it will be $40,000 a year. That will be a cooperative program among the State's fish and game department, the university, and our Bureau.

Senator MUNDT. It is handled under the direction of the college or State fish and game commission.

Mr. TUNISON. A unit is established at a university, for instance. Then there is a committee made up of members of the three agencies who decide on the type of program and administer it.

Senator MUNDT. It looks like in the justification you are just asking for $30,000 in 1965 instead of $40,000.

Mr. TUNISON. That is right.

Senator MUNDT. From here on out you are going to be asking for $40,000?

Mr. TUNISON. I think we almost have to do that, Senator.

(The statement referred to follows:)

ADVANTAGES OF THE UNIT

*Funds required to initiate the unit, $40,000*

The establishment of a cooperative fishery unit in South Dakota, as authorized under Public Law 86-686, would give needed support to a program of training, research, and sport fishery extension. The Bureau of Sport Fisheries and Wildlife concurs in the proposal.

South Dakota offers many advantages for a fishery unit, including its geographical location. Many types of fish habitat are available for study, and there are subjects of broad interest which can be profitably pursued. The area has both cold and warm water species inhabiting streams, ponds, lakes, and a variety of reservoirs. The Bureau of Sport Fisheries has a national reservoir research project with headquarters at Yankton for studying some of the large reservoirs on the main stem Missouri River. The Bureau also provides technical assistance at several Federal installations and Indian reservations in South Dakota. These established programs and the fishery unit would complement one another to the benefit of fishery science and management.

In establishing a unit, the designated university or college and the South Dakota Department of Game, Fish, and Parks would enter into an agreement with the Bureau of Sport Fisheries and Wildlife. The school would provide office and laboratory space and the use of its various facilities and services. State funds would be used in supporting work of graduate students. The fishery unit would provide training to students in preparation for careers in fishery science and management. The unit leader and assistant leader, appointed under U.S. civil service procedures, would supervise the work of graduate students

seeking advanced degrees, would conduct research in subjects of broad interest to fishery management, and would participate in extension-type programs of State and regional interest.

The funds proposed, $40,000, would provide approximately $22,000 for the salaries of the unit leader and the assistant leader; $10,000 for salaries and expenses of students; and $8,000 for general expenses, including technical equipment for laboratory and fieldwork.

### Reservoir Studies

Senator Mundt. On page 31 of your justification you request an increase of $2,000 for reservoir studies, $162,000 for the North Central Reservoir investigation this year. That is page 31.

Will this be enough to do the job? And can you briefly outline what has taken place so far in this program?

Mr. Tunison. To answer your first question, we can continue of course at that level. Now with that level of funds we are more or less restricted in our program to not more than the Lewis and Clark Reservoir. Were additional funds provided, we could expand that work there as well as go into Oahe and Randolph and Great Bend.

Senator Mundt. What about the funds required for the next reservoir?

Mr. Tunison. For that complex we would require $90,000 additional.

Senator Mundt. To take care of another reservoir?

### Decrease in Game Species Reproduction

Mr. Tunison. That is right. Now in response to your second question on what we are doing, we are rather proud of what we have found so far. This is again a rather young program. We have found so far that the reproduction of game species in Lewis and Clark has decreased very appreciably after 2 years of impoundment.

We do not know why. For instance, four out of five of the female saugers had almost no reproduction at all. Our people have developed a device to measure the plankton production.

It is a continuous process. For instance, during the winter months there are about 800 tons of plankton that pass through the dam per month. That is a lot of food. One would think, that is wonderful, you ought to have more fish. We will not know that answer until we test some other sidelines and do further research.

We have carried on studies of the life history of sauger and white crappie. I might say that the crappie are considered as a commercial species in some States. We are trying to develop better methods to assess the population of various species in the large reservoirs.

It has not been done up to this time.

### Automatic Water Chemistry Analyzer

We are hoping to find a way to do that. We also have an automatic water chemistry analyzer that measures about seven different components of water—temperature, for instance, the "pH." That is about the extent of our progress so far.

Senator Mundt. Have your technicians out there come across a sort of unusual fish called a paddlefish?

Mr. TUNISON. I can't say. I know that they are in the drainage. Whether they have found them there I am not sure, Senator. There are not too many of them.

Senator MUNDT. You don't know whether they are reproducing or not?

Mr. TUNISON. I could not say.

PROTECTION OF EAGLES

Senator MUNDT. I was interested in the comments that you made on the protection of the eagles, outlined on page 55. I have heard reports lately that the eagles are causing a lot of damage out in the western South Dakota counties and the ranchers are being allowed to shoot them.

Do our game management agents work on this type of program and if so what happens when the eagles become predatory?

Mr. PARKER. A recent amendment to the Bald Eagle Act brought the golden eagle under the protection of the law and provided for killing permits to be issued if eagles are about to cause damage.

Also the law contains a provision that the Governor of a State can request areas to be open to shooting for certain periods of the year whenever he anticipates damage. The latter has been the course of action we have taken so far.

In other words, we have opened areas when the State government has requested that they be opened. We have not done any of the actual control ourselves.

Senator MUNDT. In other words, when you open them anybody shoots them.

Mr. PARKER. In the area that is open.

SOUTH DAKOTA ENFORCEMENT AND DEPREDATIONS CONTROL PROGRAMS

Senator MUNDT. Yes. On page 57 you are reducing the funds for enforcement and depredation control programs in South Dakota from $54,000 to $41,000. In going down through the list of States on page 56, 57, and 58, it seems to me that South Dakota is the only State which takes a reduction this year.

Mr. PARKER. I think that was the case of a purchase of an aircraft last year and it was a nonrecurring item.

Senator MUNDT. In other words, you are not going to decrease your program. Migratory waterfowl still fly through the State in great numbers.

Mr. PARKER. That is right.

ANIMAL CONTROL PROGRAM

Senator MUNDT. On page 69 you list a total of $102,000 for the animal control program in 1965 in Nebraska and in South Dakota. Will you tell me how this is broken down between States and do you have depredation control units in these States?

Mr. BUELL. Of the figure $102,000, about $68,000 is in South Dakota and $33,000 or $34,000 is in Nebraska. Of the cooperative funds listed there which I think totals $137,000, approximately $100,000 are from South Dakota, about half of which is from the South Dakota Game, Fish, and Parks Department, or something more than half. I don't remember exactly.

The remainder will come from livestock tax and from the livestock associations such as the Faith-Isabel Predatory Control Association and the Black Hills, permittees of the forest there.

Senator MUNDT. Do you have what you call depredation control units in those States?

Mr. BUELL. Yes, sir; we have a district office in Mitchell, S. Dak., which serves both Nebraska and South Dakota.

Senator MUNDT. They work with the local units?

Mr. BUELL. Yes, sir; that is correct.

### WHOOPING CRANE

Senator MUNDT. Last year you remember we had under discussion in this committee the whooping crane. It fell to my lot to become the great advocate of the whooping crane to get the money for the maintenance of the whooping crane.

Has it done any good? Has there been any increase among those in the wild or in captivity—what is the present status?

Mr. PARKER. I am happy to report that there probably are more whooping cranes now than we have had since accurate records have been kept, but not necessarily as a result of our efforts in this past year. There were 7 young and 26 adults that returned this last fall for a total of 33. The $20,000 which was added to this year's budget was used to employ an aviculturist.

### PRACTICING WITH SANDHILL CRANES

We are not working directly with the whooping crane yet because it is such a rare species. We are practicing propagating the sandhill cranes first, incubating their eggs and handling the birds. When we perfect the techniques used then we will consider the whooping crane.

### POPULATION AND LOCATION

Senator BIBLE. Is that the total population?

Mr. PARKER. 33.

Senator BIBLE. That is the entire U.S. population?

Mr. PARKER. Over all the world in the wild. There are seven in zoos. One in San Antonio and six in New Orleans. But in the wild, 33 is the total.

Senator BIBLE. Where are they located in the United States?

Mr. PARKER. They winter on our Arkansas refuge in Texas on the gulf coast, and in the summer they nest in the Wood Buffalo National Park near Great Slave Lake, Canada.

Senator MUNDT. Do you have any increase in the whooping crane population of those in captivity, in the zoos?

Mr. PARKER. Last year there was none. In the year before as I recall there was one. There is a total of four young which have been raised to adulthood in the New Orleans Zoo since 1958.

Senator MUNDT. A final question on whooping cranes. Is there anything this committee should do about the whooping crane this year?

Mr. PARKER. At the moment--Mr. Janzen, do you want to answer?

Mr. JANZEN. I would say what we have in our budget should take care of what we are able to.

NEED TO DEVELOP TECHNIQUES

Mr. PARKER. There are techniques we have to develop first.

Senator MUNDT. If you have gained seven that is not bad. We don't know if the money we provided had anything to do with it, but you are moving in the right direction. What did you do with the money?

Mr. PARKER. It was used to employ an aviculturist. We intend to take sand-hill crane eggs out of wild nests in the spring to learn the technique of propagation before we attempt to do anything with the whooping crane.

Mr. JANZEN. And also learn how to capture these animals without putting one of the specimens in jeopardy. The sand-hill crane is so much like the whooping crane that if once we are satisfied we can capture them without jeopardizing them, maybe we can consider the method.

Again, there is a public relations problem involved here and we are going to move very slowly in this field.

SOIL AND MOISTURE CONSERVATION AT LAKE ANDES NATIONAL WILDLIFE REFUGE

Senator MUNDT. What do you propose to do in the line of soil and moisture conservation work in the appropriation listed on page 87. I am still stimulated by the fact you have reached way down in your pocket and gotten $2,000 for Lake Andes.

Mr. PARKER. These are attempts at either adding soil amendments to the cultivated land or rearranging the fields or gully plugging, sodding draws, and so forth. This particular item of $2,000 I can't say for sure but I will be glad to furnish information for you.

(The matter referred to follows:)

BUDGET ESTIMATE FOR 1965

The $2,000 estimate for soil and moisture conservation work on the Lake Andes National Wildlife Refuge is for seeding grass and legume mixtures on steep slopes and eroded lands; laying out strips to reduce wind erosion; using nitrogen fertilizer on eroded areas; tilling of stubble mulch; controlling weeds on croplands; and planting of shelterbelts. Several waterways will be shaped and seeded. Erosion and deposition into the lake along the Owens Bay shoreline will be reduced by shaping, reseeding, and riprapping. Some fencing will be accomplished to obtain more uniform grazing and improve vegetation on overgrazed areas and improve the nesting habitat.

BROOKINGS, S. DAK., COOPERATIVE WILDLIFE RESEARCH UNIT

Senator MUNDT. You have reduced the funds available for the cooperative wildlife research unit at Brookings, S. Dak., by $800. That does not sound like a very serious cut but there must have been some reason for it.

I was wondering what it is because it seems to me there were cuts made in only 2 of the 18 States conducting programs of that type.

Mr. PARKER. The South Dakota unit, as you well recall, is a new one. I would say the reduction there represented the cost of an automobile which is a nonrecurring item.

Senator MUNDT. You talk on page 84 of over 100 publications coming out of these cooperative programs. I don't want to be surfeited with all of them but I would appreciate if you will send to my office 10 or a dozen samples.

WETLANDS INSPECTION PROGRAM

A final question dealing with the wetlands inspection program. As you know this has been a bone of contention for a long time. North Dakota and South Dakota are directly involved. You say you plan to investigate 7,000 applications during 1965.

That looks like a lot of progress. How much land do you expect to buy and how much acreage do you expect to get and are you going to keep the landlords and the county commissioners happy in the process?

Mr. JANZEN. We do have the assistant director who is responsible for the whole program, the acquisition and inspection program, Mr. McBroom. He is prepared to answer the question.

LAND REQUIREMENT

Mr. MCBROOM. I take it your question is as to how many acres of land do we expect to acquire and take easements on under the drainage referral program?

Senator MUNDT. That is right.

Mr. MCBROOM. I will have to be candid with you, Senator, and say not very many. We have worked on this pretty hard and so far we have acquired only 1,400 acres of easements in all three States since the beginning of the drainage referral program in October 1962. In South Dakota we have acquired 653 acres in easement. As you know——

Senator MUNDT. This is by easement?

Mr. MCBROOM. Yes, sir.

Senator MUNDT. How much by purchase?

METHOD OF ACQUIRING LAND

Mr. MCBROOM. Less than that, Senator. Almost none. We are finding out that the farmers are preferring to hang on to their lands and not go into a sale or easement proposition under the inspection program.

Senator MUNDT. Don't they prefer easements to purchase when it gets to that point?

Mr. MCBROOM. I think we will have to conclude that they prefer nothing. They prefer to wait out the 5 years until they can be eligible for drainage assistance. That would probably be the most candid way of saying it.

Senator MUNDT. How many would you like to get?

Mr. MCBROOM. We would like to get them all.

Senator MUNDT. What would be your optimum target?

Mr. MCBROOM. Here is a situation in your State of South Dakota, for example. We inspected wetlands there and a lot of them we find are not of high value. You will recall under the act calling for the

referral inspection, our people are to decide whether they are or are not of high value. Some are not of particularly high value.

From the record so far, we have found out that there were some 1,971 individual wetlands of high value for waterfowl under the drainage referral program in South Dakota, embracing 5,614 acres. We would like to buy those or take easements on them. The figure is $25,500 for all three States—South Dakota, North Dakota, and Minnesota.

POOR RECORD FOR ACQUIRING LAND

But our record of getting them is pretty poor. The total take of easements in South Dakota is 653 acres.

Senator MUNDT. Could you juice up your offer a bit on easements? Would that help?

Mr. MCBROOM. We are able to get a lot of easements under the regular program, pursuant to the Migratory Bird Conservation Act, where a drainage referral inspection is not involved. Just the first 6 months of this fiscal year we have gotten as many acres in easements as we did in the 2 previous years in these States. So we think our price is probably right.

Senator MUNDT. That brings to mind, I have met a few fellows out there who claim they have potholes and sloughs that they might be willing to sell, they might be willing to make easements on.

OFFICES TO CONTACT IN LAND ACQUISITION

They have mentioned it to me to that effect. Whom should they contact? Do they initiate it at that end?

Mr. MCBROOM. Yes, sir, they should contact one of our field offices or our regional office in Minneapolis. I can give you those addresses.

Senator MUNDT. Send those over. Maybe we can stimulate some business interests. I am all for it.

PROBLEM IN GETTING GOVERNOR'S PERMISSION IN LAND ACQUISITIONS

Mr. MCBROOM. Our problem in acquiring these areas in the Dakotas, Senator, is not a problem of getting together with the owner. Our problem is getting permission from the Governors to acquire these areas.

Senator MUNDT. That would not apply to easements.

Mr. MCBROOM. Technically the Governor has to give approval for those, too, but he has generally done so.

Senator MUNDT. You have no trouble with the Governors?

Mr. MCBROOM. No problem there.

Senator MUNDT. His only reticence is because of the tax payment problem.

Mr. MCBROOM. With the easement, the land stays on the tax rolls. As I mentioned our acquisition of easements has taken a very dramatic and sudden rise just within the last few months.

Senator MUNDT. I am mighty glad to hear that. I think there must be something in this easement formula which can be used to stimulate further inspection, assuming your rates are fair.

Mr. McBroom. That is right. He goes on just like before except that he agrees with us not to drain, burn, or fill his wetland acres.

Senator Bible. The Senator from Wyoming.

BEULAH, WYO., FISH GENETICS RESEARCH LABORATORY

Senator McGee. I have some questions on two or three Wyoming projects. First, our fish genetics lab at Beulah. We have gotten the initial $340,000 to acquire the property. We have had $115,000 this last year for development and planning in the initial stage at the facilities there.

I note in the current budget request that only $50,000 has now been added to go on from here. Now, with the $0.5 million already invested there, how much really is it going to cost us to delay another year on starting construction there?

Mr. Tunison. Senator, there is a point. There is a delay in many programs; not only Federal Government, but States and even on personal properties.

There are times you just don't feel that you can afford it. In our case, we have our fiscal policies and one of the projects that we had to postpone——

MONEY REQUIRED TO COMPLETE PROJECT

Senator McGee. How much yet needs to be expended to complete the project at this stage?

Mr. Tunison. I am hoping, personally, that we can develop the establishment to the extent of about $1,400,000 and at that level get into the genetics work and then if it is decided that it is necessary, say, after 10 years—I am picking that perhaps rather loosely—we may need to expand it maybe another $1 million.

This is a long-time research project that will be dealing with many generations of trout. Some of those we will want to retain every year. There will be many strains that we will work on.

As far as our Bureau is concerned, we are hoping that we can arrange through budget to construct this to the extent of roughly $1,400,000.

Now, we have used planning money this year and we do have preliminary plans for the facility. I think this comes out to a little better than $2 million.

I am hoping that we can find ways to hold the level; say, at around $1,400,000, and still produce something for the good of research and production.

Senator McGee. Again, the real point of my question is that we have that sizable investment and, in effect, under the proposed budget, it is being permitted to lie almost idle.

PROBLEM OF INCREASING CONSTRUCTION COSTS

I would think that would become a cost factor in your calculations.

Mr. Tunison. That is correct, Senator. We are aware that construction costs are increasing; they have year after year. Actually, we are embarrassed at times when we report to the committee here a price tag on a certain project and then come back a couple or 3 years later and it has gone up.

It happens. We recognize it. As I say, within the fiscal limits that we had we could not include it.

Senator McGEE. What sum could you carefully make use of if appropriated this year?

WATER COLLECTION SYSTEM AND BUILDINGS REHABILITATION

Mr. TUNISON. For this pending year—one of the major things that we want to undertake would be a water collection system, to get it into our laboratories.

Then, in addition, with what is remaining of the 115 that was appropriated, last year, there will be not enough there to complete the rehabilitation of the buildings and the sum total of those would be $231,000.

Senator McGEE. So, you could actually use in this 1965 budget an additional $231,000?

Mr. TUNISON. That is correct, Senator.

EMPLOYES AT THE LABORATORY

Senator McGEE. I also note that you referred to two permanent positions at the lab. I have been advised that the caretaker appointment was temporary and that your regional office in Albuquerque had no idea when the announcement for the exam for the permanent position would be made. Would you care to comment on that?

Mr. TUNISON. We have there now a caretaker and a professional biologist.

Senator McGEE. Temporary?

Mr. TUNISON. Well, the biologist is permanent civil service but the job itself may be classed as temporary. However, there is no need to worry on that. With the $50,000 that we are requesting this year, we hope that with that staff there will be no question but it will be a firm installation and we can proceed.

As you know, this is the first year that we have had any activity there other than the purchase of land which occurred last May.

Senator McGEE. I was interested in when these temporary positions might become permanent.

Mr. TUNISON. Now, I get your point. Offhand at the moment——

Senator McGEE. There is great feeling up there in that corner of the State on this matter. That is the reason I wanted an assurance from you.

ESTIMATE OF REQUIRED PERSONNEL

Mr. TUNISON. I would hesitate to report right now on the total number of positions that we will have, say, 10 years from now. I would like very much, if we could submit for the record, if I may, Mr. Chairman, what our best estimate is on personnel in the next——

Senator McGEE. I would like to have that. Now, I want a firm indication from you as to whether or not the personnel now there are going to acquire permanent status before we are advised of that or before we have a chance to have another look at it.

Mr. TUNISON. We will be glad to report on that.

Senator McGee. We would like an understanding that there will be no move to make the individuals permanent until we can resolve our personnel questions there, if that is agreeable or consistent with your procedures.

Mr. Tunison. That is right.

Senator Bible. It may be supplied for the record.

(The statement referred to follows:)

PERSONNEL AND ORGANIZATION CHART

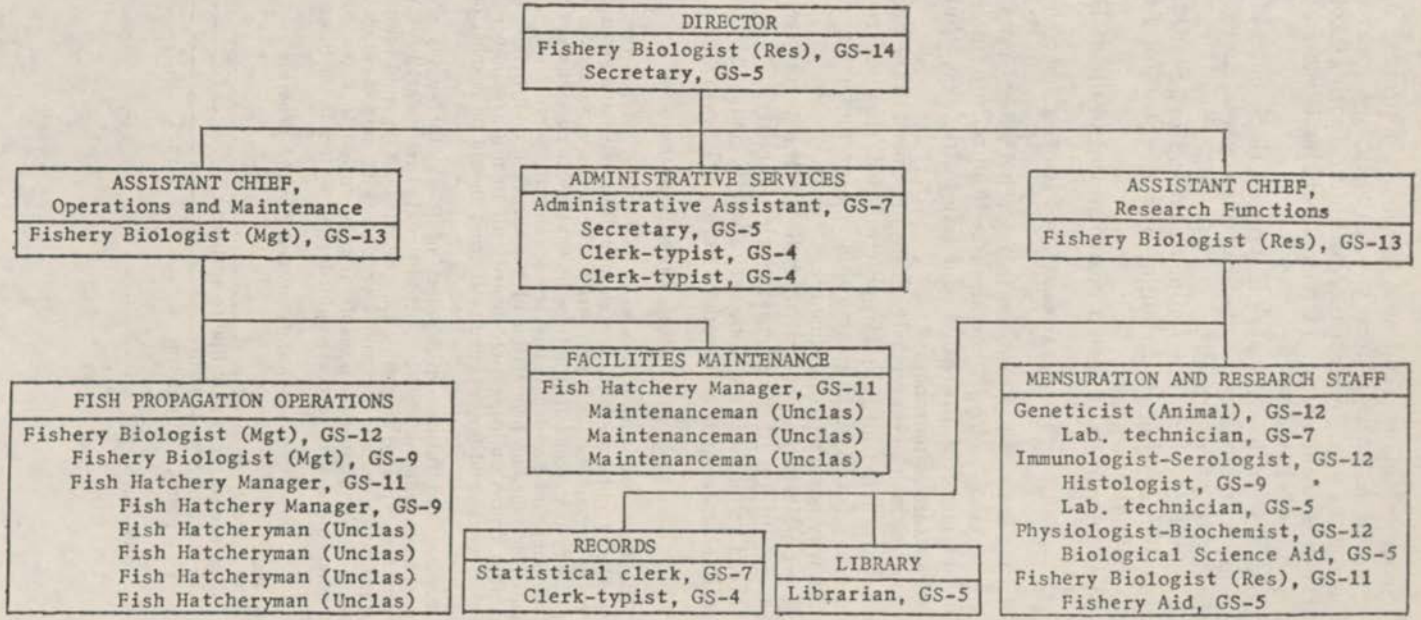
At present the staff of the Fish Genetics Laboratory consists of two persons. Mr. Peter F. Smith was employed on a TAPER appointment immediately following acquisition of the valuable site in an unclassified (wage board) position of maintenanceman. Mr. Smith's familiarity with the property, gained as operator of the small commercial hatchery and as owner, has been of great assistance in its maintenance and in the planning of its development. Later, Mr. Robert G. Piper was transferred from the Division of Fish Hatcheries to the position of fishery biologist (management), GS–12. Mr. Piper's professional experience in private, State, and Federal hatchery management has enabled him to give substantial help in planning the laboratory's facilities and the future complex fish propagation operations which he is scheduled to conduct. Mr. Ronald DeVall who was employed for a period during fiscal year 1964 as an administrative assistant, GS–5, resigned for personal reasons and has not yet been replaced. Temporary student help was satisfactorily used and is planned.

Anticipated available funds for fiscal year 1965 will permit appointment of the director of this new installation, provisionally a fishery biologist, GS–14. It is anticipated that he will recruit for the vacant administrative assistant position, and will establish and fill during the year either a fish hatchery manager or a fish hatcheryman position and at least one of the professional research biologist positions.

Subsequent recruitment of staff, as outlined in the accompanying organization chart will be contingent upon the available funds, the availability of well-qualified personnel (particularly in the professional specializations) and the progress of construction of needed facilities.

ORGANIZATION CHART

FISH GENETICS LABORATORY
Ranch A
Beulah, Wyoming



Senator McGEE. And now to the other project, in Saratoga, Wyo.

Senator MUNDT. Before you leave that, I took up Beulah before. There is a lot of interest in North and South Dakota. Except for a surveyor's accident, Sand Creek should have been in South Dakota but it is on the other side.

We do want to associate ourselves with Senator McGee. You have a wonderful product, a fine source of water, and it will be a highly productive fish operation.

Senator McGEE. The senior Senator from South Dakota was very helpful in getting it through. We are grateful for whatever error was made there.

We are glad to have that beautiful corner of the Black Hills.

SARATOGA, WYO., FISH HATCHERY

In regard to the Saratoga fish hatchery, that is an old fish hatchery built 50 years ago. It was designed to produce small fingerlings when the old theories prevailed about how to raise trout, what size, and where to put them.

Now, with the increased fishing pressures in the area and the greater trend toward planting larger trout for survival reasons and others, the need for updating or replacing or modernizing this facility in some way is very pronounced.

I wonder if you could provide for the record what the estimated cost might be of modernizing this facility.

Mr. TUNISON. We will be very glad to, Senator.

(The statement referred to follows:)

DEPARTMENTAL STATEMENT

The Saratoga station was established in 1914 for the production of small fingerling trout for stocking high mountain lakes and streams. Since that time, greatly increased fishing pressure in the area served by the station and changes in fishery management practices have made it necessary to restock waters with large fingerling and legal-sized trout. Rearing facilities at the station are inadequate for efficient production of the larger size fish now required. Also, the original frame buildings which are still in use are in very poor condition. A major repair and improvement program should be carried out to modernize the unit.

Present and future development of the water supply will greatly increase the potential fish production. Additional rearing facilities, outlined in the program, are expected to double the present 30,000-pound annual production. The future requirements for trout for restocking purposes are expected to exceed the greatest production possible at this station in a few years due to the tremendous increase in recreational fishing of waters in the State.

*Funds needed for the program*

| | |
|---|---|
| 1st phase: | |
| Construct raceways | $85,000 |
| Replace water supply line to spring | 70,000 |
| Replace intake structure | 23,000 |
| Well, pump, and pipeline | 10,000 |
| Subtotal | 188,000 |

*Funds needed for the program*—Continued

| | |
|---|---|
| 2d phase: | |
| Combination hatchery building, including hatching room, feed and cold storage, equipment, shop and office | $140,000 |
| 2 residences with garages | 40,000 |
| Display tank | 3,000 |
| Equipment | 5,000 |
| Subtotal | 188,000 |
| Total estimated cost of the program | 376,000 |

1965 BUDGET REQUEST

Senator MCGEE. Are there any funds in this budget at all for this project in Saratoga?

Mr. TUNISON. No construction funds; no.

Senator MCGEE. They are just maintenance funds?

Mr. TUNISON. Operation and maintenance funds; yes, sir.

Senator MCGEE. Did you request funds originally?

Mr. TUNISON. No, sir.

Senator MCGEE. There was no request made to the Bureau of the Budget?

Mr. TUNISON. No.

Senator MCGEE. I understand that in the rehabilitation of the facility there that there have been enough projections made so that we could have a reasonably close estimate on what it might cost.

Mr. TUNISON. I believe that is correct, Senator.

Senator MCGEE. This could be divided into phases, perhaps, in terms of getting the available funds underway?

Mr. TUNISON. That is correct.

Senator MCGEE. When we have that in the record, I would like to keep in touch with you on starting to move on this project.

Mr. TUNISON. We will be very glad to.

YELLOWSTONE NATIONAL PARK FISHERY MANAGEMENT PROJECT

Senator MCGEE. Up in Yellowstone National Park we have had much interest in the Bureau's fish research program there. I understand the program has been completed. Yet the need for continuing the fish management program there, of course, is even greater than it was before. The increased pressure of visitors up there and the number of people fishing increases annually.

I was advised that during this past season just ended, for example, 192,000 anglers spent over 400,000 hours catching 320,000 cutthroat trout. It is this kind of pressure I would think that builds up a greater need for continuing the management program. I wonder if you could supply for the record a description of the work you have been doing in this area and the reasons why it ought to be continued if sufficient funds were made available.

Mr. TUNISON. We will be glad to do that, Senator.

Senator MCGEE. Likewise, include what has been spent up to now on the programs and what is needed to fund it and keep it going in the future.

(The statement referred to follows:)

DEPARTMENTAL STATEMENT

Funds required to implement the project, $50,000.

Yellowstone National Park reported 3,320,000 visitor-days use in 1963. One of the most attractive features in the park is the recreational fishing. Management of the fishery is entirely a Federal responsibility since State licenses are not required and Wyoming does not have legal authority to enforce regulations or manage the fishery. The National Park Service and the Bureau of Sport Fisheries and Wildlife have cooperated in fishery studies in park waters and this arrangement in the past proved effective. Fishery research studies were concluded in 1961 and the program reassigned as a function of management services. Subsequently, only limited attention has been given the fishery.

Yellowstone Lake is one of the centers for sport fishing, where the native cutthroat trout is highly sought by anglers. During 1963, estimates show 192,332 anglers took 321,523 cutthroat trout from Yellowstone Lake. The fishery is presently in good condition; however, management information must be maintained on an annual basis to assure this favorable status. The pressure on the fishery is increasing and is expected to rise in future years. Public use of the developments recently made in the Yellowstone Lake area depends in large part on the quality of the recreational fishing.

A field agreement is in force which outlines the responsibilities of the National Park Service and the Bureau for continuing this work. Under the agreement, the National Park Service maintains the fish traps and weirs which are used in gathering data on the migration and spawning of the cutthroat trout in the tributaries of Yellowstone Lake. The Bureau of Sport Fisheries and Wildlife has agreed to provide technical personnel, seasonal employees, equipment, and motor vehicles needed to conduct the fishery study. Both agencies agree that the work should be continued and expanded so as to obtain the information needed to protect the unique fishery resources of the park and to properly manage them on a long-term basis. Surveys would be conducted on other park waters where important fishery resources and management problems occur. Attention would be given the grayling, a species which is greatly restricted in its range both within and outside the park. The need for continuing the fishery studies at Yellowstone was also recognized in the discussions and report of the National Park Service Research Committee of the National Academy of Sciences, which met at Yellowstone, June 13–16, 1963.

Of the total of $50,000 proposed, $30,000 will be used to pay the salaries of two full-time biologists and several assistants during the summer season; $10,000 for the necessary expenses of the project; and $10,000 for new and replacement equipment, including truck-type motor vehicles, electric fish shockers, and other needed items.

NATIONAL ELK REFUGE, WYOMING

Senator MCGEE. The last question which you can supply for the record has to do with our elk refuge in Teton County. We have heard some fine things about the refuge. If you will advise the committee on its status and how things are going for the record, it will save the time of the Chairman and those here this afternoon.

Senator BIBLE. You may supply it.

(The statement referred to follows:)

DEPARTMENTAL STATEMENT

The primary purpose of this refuge is to provide forage for 7,000 to 11,000 elk. Supplemental feed is provided only when the annual grass stand is insufficient or is covered with snow so deep that the grass is not available to the elk. There are 23,791 acres in the refuge. About 1,500 additional acres are administered under a lease agreement with the Grand Teton National Park.

Considerable water runoff and soil loss is taking place on parts of the refuge that have been overgrazed by elk which migrate into the refuge in winter. Many of the irrigated meadows on the refuge need rehabilitating and reseeding as well as having the ditches repaired. Streambank control is needed along Flat

Creek to counteract erosion and improve the fishing asset. In addition, an old diversion system, constructed prior to the time the land was designated as a refuge, is being threatened. It diverts water out of the Gros Ventre River on the refuge into Flat Creek to supply irrigation water for part of the refuge as well as for irrigators of private lands just below the refuge. The diversion, which was originally a native grass drainageway, has formed a very severe gully one-half mile in length which is 100 feet wide and 70 feet deep in places. It is presently bisecting the refuge and dumping sediment into Flat Creek, thus affecting the wildlife habitat and the fishing area. This erosion must be corrected before it destroys the system including the diversion dam leaving the refuge and private operators without sufficient water. It could eventually intercept all or nearly all the waters from the Gros Ventre River and seriously affect Flat Creek.

Plans are in progress for applying protective measures to this highest priority project and $50,000 has been allocated to get the work underway, but current studies show that $100,000 more will be required to complete this project alone.

A master plan is being prepared for the National Elk Refuge at the present time. This plan will outline the total development needed to enable the refuge to meet its management objectives, and will be based on complete biological and engineering studies. Included in that plan will be replacement of several buildings which were first constructed by ranchers in the late 1800's and early 1900's, improvement of irrigation water facilities, improvement of waterfowl habitat, particularly trumpeter swans, and improvement of physical facilities needed for elk management.

Senator BIBLE. I have a number of items of interest to various Senators, which I should like to inquire about now.

### NATCHITOCHES NATIONAL FISH HATCHERY, LOUISIANA

The Chairman advises me it is his understanding that no funds have been provided in the budget for construction and repairs of the U.S. fish hatchery in Natchitoches, La. It is also his understanding that the hatchery is in need of repairs and that the employees need housing. Can you estimate what funds would be required to provide the necessary repairs to the fish hatchery?

Mr. JANZEN. It will require $421,000 to accomplish these repairs. I will place a complete statement in the record.

(The statement referred to follows:)

### DEPARTMENTAL STATEMENT

The Natchitoches National Fish Hatchery produces bluegill and red-ear sunfish, largemouth black bass, and channel catfish. At the present, distribution is made to 48 parishes in Louisiana and 13 counties in southern Arkansas. Additional allotments are made to the Mississippi Game and Fish Commission. Average annual production is approximately 3 million fish, and about 4,000 fish applications are received each year.

Most of the fish are stocked in farm or ranch ponds of less than 10 acres. It is estimated that there are 90,000 acres of these impoundments in Louisiana. In 1960, on a national basis, these ponds provided about 2,880,000 man days of fishing; by 1976 impoundments of this nature will provide over 4 million man-days of fishing each year in the State. Management stocking of existing ponds and initial stocking of new ponds place an increasingly heavy demand on hatchery facilities.

In order to meet the need for warm-water species, it is necessary to undertake extensive repair and renovation of existing pond areas and to provide special facilities required for channel catfish rearing programs. Other improvements are needed to provide adequate housing for permanent employees and to improve the level of efficiency of station operations. The development outlined below represents the first reconstruction program at this station since before World War II. On completion of the development, this hatchery will have a potential annual production of about 5 million fish.

*Funds needed for the program*

| | |
|---|---|
| 1st phase: | |
| Deepen, regrade, divide, and seal pond area, provide supply and drainage facilities (initial development approximately 15 acres) | $100,000 |
| Install catfish production facilities | 19,000 |
| 2 residences | 39,000 |
| Fertilizer storage building | 5,000 |
| Domestic water supply and sewage systems | 3,500 |
| Equipment | 9,000 |
| Subtotal | 175,500 |
| 2d phase: | |
| Complete renovation of pond area, provide supply and drainage facilities (approximately 25 acres) | 180,000 |
| Aquarium building (with public restrooms) | 49,500 |
| Repair and resurface station roadways and levees | 16,000 |
| Subtotal | 245,500 |
| Total estimated cost of the program | 421,000 |

BOZEMAN NATIONAL FISH HATCHERY, MONTANA

Senator BIBLE. I will place in the record a letter to Chairman Hayden from Senator Mansfield in which he urges that the national fish hatchery at Bozeman, Mont., be renovated.

(The letter referred to follows:)

U.S. SENATE,
OFFICE OF THE MAJORITY LEADER,
*Washington, D.C., February 17, 1964.*

Hon. CARL HAYDEN,
*Chairman, Appropriations Committee,*
*U.S. Senate.*

DEAR MR. CHAIRMAN: As you know, I have advocated in recent years a program of improving and developing the national fish hatcheries in the State of Montana. Through your cooperation and that of the Senate, in recent years modernization and improvement programs have been financed at both Ennis and Creston in my State. These projects now have adequate funds available, and the work at the most recent facility, Ennis, should be completed in the not too distant future.

I now believe that the next facility which needs to be considered is the one at Bozeman, Mont. Several years ago, during the earthquake, there was a certain amount of damage, and I am not sure that the necessary improvements have been taken care of. I am informed that the representatives of the Fish and Wildlife Service will be before the Interior Appropriations Subcommittee on February 27, and I would appreciate it if you would alert the staff to obtain the necessary estimates and question the representatives on what needs to be done at the Bozeman Federal Fish Hatchery.

Thank you for your cooperation, and with best personal wishes, I am,

Sincerely yours,

MIKE MANSFIELD.

Senator BIBLE. Will you indicate, by a statement in the record, the condition of the Bozeman National Fish Hatchery and work which should be done there, including the cost?

Mr. JANZEN. We will place that information in the record, sir.

(The statement referred to follows:)

DEPARTMENTAL STATEMENT

The Bozeman National Fish Hatchery was established in 1893 to produce small fingerling trout for stocking waters of western Montana. During the intervening years, many changes have been effected through improved hatchery

methods and new techniques in fishery management. At the present time, the hatchery produces approximately 60,000 pounds of rainbow and cutthroat trout annually for stocking waters of southwestern Montana. This extensive recreational area includes the East and West Gallatin Rivers and their tributaries, the Missouri River from its source to the Gates of the Mountains near Helena, Canyon Ferry Reservoir with a surface area of over 30,000 acres, and numerous high mountain lakes in the Gallatin, Madison, and Beaverhead drainages.

The waters of southwestern Montana, which include those on Federal lands as well as open State waters, are nationally known for their excellent fishing. It is reported that nearly half of the fishing licenses purchased in the State are sold in this general area. This fact coupled with the expanding population and more leisure time has resulted in a steadily increasing fishing pressure. The need for large fingerling and yearling trout in the area stocked by the hatchery can be more fully met if maximum development of facilities at the station is accomplished.

The hatchery building and residences recommended for replacement were constructed prior to the turn of the century and have far surpassed their normal life expectancy. Their condition is such that further remodeling is not practical. Since World War II, only a small amount of construction funds has been available for work at this hatchery. This included a total of $59,600 appropriated in fiscal years 1950–52 and $20,000 in fiscal year 1962 to repair earthquake damage. The development program outlined provides for the replacement of these deteriorated and outmoded structures and additional facilities for a modern, safe, and efficient fish-cultural unit. When completed, facilities at the Bozeman hatchery will be adequate to rear approximately 85,000 pounds of trout annually. This will allow the station to more adequately fulfill its responsibilities in preserving and enhancing sport fishing in southwestern Montana.

*Funds needed for the program*

| | |
|---|---|
| 1st phase: | |
| Aerator tower | $5,000 |
| Sump and pumps | 5,000 |
| Production well | 15,000 |
| Supply lines (sump and well to aerator) | 10,000 |
| 10 raceways (6 by 60 feet) | 30,000 |
| Tanks | 8,000 |
| Hatchery building (replacement) | 110,000 |
| Subtotal | 183,000 |
| 2d phase: | |
| Incubators | 5,000 |
| 2 residences (replacement) | 40,000 |
| Storage building (2 garages, oil and paint storage, equipment storage) | 20,000 |
| Roads and drives | 15,000 |
| Grounds, landscaping | 10,000 |
| Utilities | 10,000 |
| Subtotal | 100,000 |
| Total estimated cost of the program | 283,000 |

CORNING NATIONAL FISH HATCHERY, ARK.

Senator BIBLE. At the request of Senator Fulbright, who has written to Senator Hayden and whose letter I will include in the record, I will appreciate your furnishing a statement concerning construction needs at the Corning, Ark., National Fish Hatchery.

Mr. JANZEN. I will be glad to do that, Mr. Chairman.

(The letter and statement referred to follow:)

U.S. SENATE,
COMMITTEE ON FOREIGN RELATIONS,
*February 21, 1964.*

Hon. CARL HAYDEN,
*Chairman, Subcommittee on the Department of the Interior Appropriations Bill, Committee on Appropriations, U.S. Senate, Washington, D.C.*

DEAR MR. CHAIRMAN: As your subcommittee is now considering the Interior Department appropriation bill, I wish to bring to your attention an item which I sincerely believe should be included.

The Federal Government operates a fish hatchery in Corning, Ark., which has served the northeast section of my State very well. The installation is now in need of renovation and the necessary repairs and improvements are estimated at $99,000. This work has been programed by the Bureau of Sport Fisheries, but no funds were included for it in the 1965 budget.

I need not tell you that the number of fishermen on the streams and lakes is increasing each year and it seems to me imperative that every effort be made to maintain the facilities necessary to keep an adequate supply of fish in our streams.

I will appreciate the subcommittee's attention to this item.

With best wishes, I am,

Sincerely yours,

J. W. FULBRIGHT.

DEPARTMENTAL STATEMENT

The Corning National Fish Hatchery located in Clay County, Ark., was established in 1938 to produce warm-water species of fish for farm ponds and reservoirs in the general vicinity of the hatchery. During the ensuing years the distribution area has been progressively enlarged to include all of eastern Arkansas, 10 counties in Illinois, and several counties in southeastern Missouri and western Tennessee. In addition to this, the hatchery has frequently been called upon to allocate fish for stocking in Kentucky waters.

Currently, the Corning hatchery produces about 1.8 million fish annually weighing in excess of 5,500 pounds. This includes four different species; channel catfish, largemouth bass, bluegill, and redear.

In fiscal year 1961, Congress appropriated $100,000 to enlarge rearing facilities and to make improvements of other physical facilities. This work has been accomplished.

At the present time, additional funds are required to complete a general renovation and modernization of the physical plant. This program would modernize existing facilities and provide new facilities for greater efficiency and ease of operation. The items included in this program are as follows:

*Funds needed for the program*

| | |
|---|---|
| Repair pond levees | $4,000 |
| Deepen 5 acres of ponds | 4,000 |
| Concrete steps for 20 ponds | 5,000 |
| Garage building | 7,000 |
| Equipment storage building | 8,000 |
| Repair existing buildings | 5,000 |
| Replace pumphouse | 2,000 |
| Combination building (office, display facilities, public restrooms, food preparation room) | 45,000 |
| Blacktop station roads | 10,000 |
| Landscaping | 4,000 |
| Equipment | 5,000 |
| Total estimated cost of the program | 99,000 |

ARKANSAS FISH AND WILDLIFE PROJECTS

Senator BIBLE. Senator McClellan has forwarded a statement to the committee concerning the Greers Ferry, Corning, and Mammoth Spring National Fish Hatcheries. His statement will be made a part of the record.

(The statement referred to follows:)

STATEMENT OF SENATOR JOHN L. MCCLELLAN

Mr. Chairman, I am grateful for this opportunity of bringing to the subcommittee's attention the need for funds for several Arkansas projects administered by the Fish and Wildlife Service, Department of the Interior. The budget contains no funds for national fish hatcheries construction in Arkansas, and I believe there are several such projects that merit the subcommittee's serious consideration.

GREERS FERRY NATIONAL FISH HATCHERY

Congress provided $170,000 in fiscal year 1962 to initiate construction of the Greers Ferry Dam National Fish Hatchery in Cleburne County, Ark. This was followed by subsequent appropriations of $265,000 in fiscal year 1963 and $188,000 in fiscal year 1964.

The construction of this hatchery is needed to produce trout for stocking reservoirs and cold tailwaters of streams resulting from Corps of Engineers construction activities in the Little Red River and Red River drainage areas of southwestern Arkansas and eastern Oklahoma. Moneys received thus far will not be sufficient to complete this unit. Additional funds in the amount of $177,000 would result in completion of the unit with a potential production of 150,000 pounds of trout annually.

We are attempting to develop the area of Arkansas in which this fish hatchery is located. For various reasons, a great deal of emphasis must be placed on tourism if we are to raise the standard of living and the opportunities for the citizens of this area. Trout fishing is one of the more important inducements to tourists to come to this area. Both the Area Redevelopment Administration and the Department of the Interior have conducted studies in regard to the development of the area in which this fish hatchery is located, and I believe that both of these studies will bear out the importance of good fishing as an inducement to tourists. I, therefore, most respectfully urge the subcommittee to consider an appropriation of $177,000 for Greers Ferry National Fish Hatchery for fiscal year 1965.

CORNING NATIONAL FISH HATCHERY

The Corning National Fish Hatchery located in Clay County, Ark., was established in 1938 to produce warm-water species of fish for farm ponds and reservoirs in the general vicinity of the hatchery. During the ensuing years the distribution area has been progressively enlarged to include all of eastern Arkansas, 10 counties in Illinois, and several counties in southeastern Missouri and western Tennessee. In addition to this, the hatchery has frequently been called upon to allocate fish for stocking in Kentucky waters.

At the present time, additional funds are required to complete a general renovation and modernization of the physical plant. This program would modernize existing facilities and provide new facilities for greater efficiency and ease of operation. Ninety-nine thousand dollars is needed to accomplish the renovation and modernization which I have referred to and, consequently, I hope the subcommittee will recommend an appropriation of $99,000 for Corning National Fish Hatchery.

MAMMOTH SPRING NATIONAL FISH HATCHERY

The Mammoth Spring National Fish Hatchery located in Fulton County, Ark., was established in 1904 for the production of trout and bass. Since that time, the production program has been changed to meet present management requirements. At this time, the station propagates largemouth bass, bluegill, redear, and channel catfish. These fish are stocked in waters of 47 counties of northern and western Arkansas and 7 counties of southern Missouri. There are approximately 2,900 farm ponds stocked from the Mammoth Spring Hatchery each year.

Annual production at Mammoth Spring currently averages about 1¾ million fish of the species mentioned. In addition, about 5,000 people, mostly schoolchildren, visit the hatchery each year.

Additional funds are required to continue the development of the hatchery as planned. Upon completion of the program, at an estimated cost of $122,000,

new facilities will improve operating efficiency and permit a large increase in fish production. I, therefore, most respectfully request the subcommittee to recommend an appropriation of $122,000 for this project.

ARKANSAS FISH HATCHERIES

Senator BIBLE. The Senator from Arkansas recommends appropriation of funds to continue construction work at these facilities. Will you place in the record statements covering each of them, indicating the work to be done and its cost?

Mr. JANZEN. Yes, sir.

(The statements referred to follow:)

GREERS FERRY DAM NATIONAL FISH HATCHERY

Congress provided $170,000 in fiscal year 1962 to initiate construction of the Greers Ferry Dam National Fish Hatchery in Cleburne County, Ark. This was followed by subsequent appropriations of $265,000 in fiscal year 1963 and $188,000 in fiscal year 1964.

The construction of this hatchery is needed to produce trout for stocking reservoirs and cold tail waters of streams resulting from Corps of Engineers construction activities in the Little Red River and Red River drainage areas of southwestern Arkansas and eastern Oklahoma. The Greers Ferry Dam and Reservoir project on the Little Red River is nearly completed and the construction of additional dams and reservoir projects which are authorized will follow in the near future.

Biological investigations have revealed that for mitigation purposes, 60,000 pounds of trout will be required annually for stocking the cold waters created by the Greers Ferry Dam. These investigations also show an additional 90,000 pounds of trout will be required to stock other cold water habitats located in southwestern Arkansas and eastern Oklahoma.

A suitable site on Federal lands below Greers Ferry Dam was selected for the construction of hatchery facilities. An adequate supply of cold water is available from the Greers Ferry Reservoir and suitable outlets were provided during construction of the dam to allow for operation of the hatchery.

Funds received to date are expected to be obligated by June 1964 and construction completed in the summer of 1965. Moneys received thus far will not be sufficient to complete this unit. The total estimated cost of the hatchery is $800,000. Additional funds in the amount of $177,000 are required to complete the unit which will have a potential production of 150,000 pounds of trout annually.

*Funds needed to complete the program*

| | |
|---|---|
| Concrete raceways with individual water supply and drainage features | $50,000 |
| 2 residences | 40,000 |
| Outside utilities, including supply and drainpiping, overhead lights, and domestic sewage facilities | 12,000 |
| Paved drives, parking area, fencing, and landscaping | 45,000 |
| Equipment | 30,000 |
| Total funds needed | 177,000 |

NORFOLK NATIONAL FISH HATCHERY

Construction of the Norfork National Fish Hatchery, as originally designed, was completed in 1957 and operations began in August of that year. With facilities then completed, the hatchery had a production potential of 200,000 pounds of trout annually. Since establishment of the hatchery, requirements for trout in the area stocked have increased by 100 percent.

In order to meet this increased requirement for trout, Congress appropriated funds in fiscal year 1962 to initiate an expansion of hatchery facilities. Additional funds made available in fiscal years 1963 and 1964 were sufficient to complete the expansion program. Current work schedules indicate that this construction program will be finished by the end of 1964. On completion, the hatchery should have a potential annual production of 400,000 pounds of trout.

MAMMOTH SPRINGS NATIONAL FISH HATCHERY

The Mammoth Spring National Fish Hatchery located in Fulton County, Ark., was established in 1904 for the production of trout and bass. Since that time, the production program has been changed to meet present management requirements. At this time, the station propagates largemouth bass, bluegill, redear, and channel catfish. These fish are stocked in waters of 47 counties of northern and western Arkansas and 7 counties of southern Missouri. There are approximately 2,900 farm ponds stocked from the Mammoth Spring Hatchery each year.

Annual production at Mammoth Spring currently averages about 1¾ million fish of the species mentioned. In addition, about 5,000 people, mostly schoolchildren, visit the hatchery each year.

Congress provided $100,000 in fiscal year 1960 and an additional $82,000 in fiscal year 1964 to initiate a modernization and improvement program for this hatchery. With the funds, it was possible to remodel the existing ponds and provide additional rearing facilities, repair old buildings, and construct a new combination building, replace supply and drain lines, and make other improvements of the hatchery's facilities.

Additional funds are required to continue the development of the hatchery as planned. Items needed along with their estimated costs are listed below. Upon completion of the program, at an estimated cost of $122,000, new facilities will improve operating efficiency and permit a large increase in fish production.

*Funds needed for the program*

| | |
|---|---|
| Install concrete raceways | $13,500 |
| Raze old buildings | 2,000 |
| Replace residence No. 1 | 20,000 |
| Storage building | 10,000 |
| Fish holding house | 26,000 |
| Fertilizer storage building | 6,000 |
| Oil and paint house | 3,000 |
| Landscaping and walkways | 4,000 |
| Hard surfacing station roadways | 17,500 |
| Fencing | 14,000 |
| Equipment | 6,000 |
| Total funds needed | 122,000 |

MARION NATIONAL FISH HATCHERY, ALABAMA

Senator BIBLE. Senators Hill and Sparkman have written to urge continued renovation work at the Marion National Fish Hatchery. Their letters will be included in the record at this point.

(The letters referred to follow:)

UNITED STATES SENATE,
COMMITTEE ON LABOR AND PUBLIC WELFARE,
*Washington, D.C., February 26, 1964.*

Hon. CARL HAYDEN,
*Chairman, Senate Appropriations Committee,*
*Washington, D.C.*

MY DEAR CARL: As you know, I am very much interested in the appropriation of funds in the Department of the Interior appropriation bill to carry forward the modernization work at the Marion, Ala., National Fish Hatchery.

A program for the correction of deficiencies at the Marion National Fish Hatchery is needed, to include construction of of additional buildings, and to provide new earthen ponds to satisfy the need for fish production units, training facilities, and pond space for warm water fish-cultural research. Funds in the amount of $175,000 can be effectively used during the fiscal year 1965 for the first phase of the improvement program, and I will appreciate your and the subcommittee's earnest consideration and assistance in this matter.

Thanking you and with kindest regards, I am

Very sincerely,

LISTER HILL.

UNITED STATES SENATE,
SELECT COMMITTEE ON SMALL BUSINESS,
*February 19, 1964.*

Hon. CARL HAYDEN,
*Chairman, Subcommittee on Interior*
*Committee on Appropriations, U.S. Senate,*
*Washington, D.C.*

DEAR CARL: Hon. David S. Lee, chairman, Court of County Commissioners of Perry County, Ala., has been in touch with me concerning the need for appropriations to continue the modernization of the fish hatchery at Marion, Ala. It is a pleasure to write in behalf of the project. I hope that funds for this work can be appropriated.

With best wishes and kindest regards, I am
Sincerely,

JOHN SPARKMAN.

Senator BIBLE. How much will be needed next year to carry on the work which should be done at this hatchery?

Mr. JANZEN. For next year $175,000 would be used. The total cost of the proposed work remaining to be done is $690,000. I will be glad to supply a statement for the record.

Chairman HAYDEN. That may be done.

(The statement referred to follows:)

DEPARTMENTAL STATEMENT

The Marion National Fish Hatchery, established in 1932, produces five species of warm water fish for stocking waters in an assigned distribution area in Alabama, Georgia, and Florida. On occasion, fish are also made available to hatcheries in Mississippi and other Southeastern States when production at stations in those States is inadequate to meet the need. In addition to the normal production program, two other important functions are carried on at the Marion Hatchery. These are the In-Service Training School for warm water fish culturists—the only school of its kind in the United States—and the Southeastern Fish-Cultural Laboratory. This latter activity is under the Division of Fishery Research.

During the years since original construction, production and other facilities at this station have become badly outmoded. This has occurred because of changes and increased need for specific species, sizes, and numbers of fish required for management purposes and new developments in fish-cultural methods. Additionally, there has been a serious deterioration of substandard pond installations, such as water supply and drain lines, embankments, and other essential facilities.

In order to correct these deficiencies, it is necessary to renovate existing ponds and other facilities, to construct additional buildings, and to provide 80 small new earthen ponds. This development will satisfy present needs for fish production units, training facilities, and pond space for warm water fish-cultural research.

Congress appropriated $165,000 in fiscal year 1963 to initiate the development program and $115,000 in fiscal year 1964 for continuation of the program. Work to be accomplished with 1963 funds has been completed; work to be carried out with 1964 funds—pond division, water supply and drainage facilities, roads, culverts, and grading—will begin in April of this year and is scheduled for conclusion in December. In order to complete the program at the Marion station, the following funds will be required:

*Funds needed for the program*

| | |
|---|---|
| First phase: | |
| Wet laboratory, including constant temperature room | $80,000 |
| Triplex for trainees | 40,000 |
| Divide and rebuild ponds No. 27, 30–34 with a surface area of 11 acres and install water supply and drainage facilities | 55,000 |
| Subtotal | 175,000 |

*Funds needed for the program*—Continued

| | |
|---|---|
| Second phase: Construct experimental earthen ponds (50 one-tenth acre, 20 one-quarter acre, and 10 one-half acre ponds) and install water supply and drainage facilities by dividing ponds No. 29, 38, 39, 44, 49, 50 (21.1 acres) | $200,000 |
| Third phase: | |
| Raceways, 400 linear feet of double raceway | 25,000 |
| Fertilizer, dry feed, and chemical storage building | 15,000 |
| Triplex for trainees | 40,000 |
| Water recirculation system | 50,000 |
| Laboratory and fish-cultural equipment | 20,000 |
| Subtotal | 150,000 |
| Fourth phase: Divide and rebuild remaining ponds (32.4 acres) | 165,000 |
| Total cost to complete the program | 690,000 |

SPRINGVILLE NATIONAL FISH HATCHERY, UTAH

Senator BIBLE. A request has been received from Senator Moss of Utah inquiring concerning needs at the Springville National Fish Hatchery in his State. I will appreciate your placing in the record a statement showing what is necessary at that facility, including an indication of the total cost of the work as well as that portion of it which may be done in fiscal year 1965.

Mr. JANZEN. Very well, sir.

(The statement referred to follows:)

DEPARTMENTAL STATEMENT

The Springville Hatchery established in 1915 produces rainbow and brook trout for distribution to waters on Federal lands and other managed waters. Some warm-water fish are also reared for stocking suitable waters in Utah. The distribution area is composed principally of national forests, Indian reservations, and military reservations. Average annual production is about 80,000 pounds of fish. In order to more adequately stock this area and more fully meet the obligation to preserve and enhance the fishery resource on lands under Federal control, it will be necessary to further develop and rehabilitate station facilities. The water supply has gradually decreased to the point where current production levels are increasingly difficult to maintain. An increase in the water supply is required in order to produce the pounds of trout needed and to improve efficiency of fish-cultural operations. Other improvements are designed to modernize the operations program and provide adequate station facilities. The existing hatchery building is outmoded and in need of extensive repairs. This building should be replaced with one of modern design. The new building would incorporate a small aquarium-display room to present conservation education information for the visiting public. On completion of the development program outlined below, this hatchery will have a potential annual production of 125,000 pounds of fish.

*Funds needed for the program*

| | |
|---|---|
| First phase: | |
| Water supply improvement, including the collection of spring flows and protection of intake facilities, well, and pipeline installations necessary to provide an efficient system | $48,000 |
| Replace hatchery building | 120,000 |
| Subtotal | 168,000 |

*Funds needed for the program*—Continued

| | |
|---|---|
| Second phase: | |
| Earthen ponds, rehabilitate present ponds including supply and drainage facilities, construct additional ponds with supply and landscaping, fill and level area east of highway | $18,000 |
| Chain-link fence, roads, and sidewalks | 20,000 |
| drainage features | $40,000 |
| Subtotal | 78,000 |
| Total estimated cost of the program | 246,000 |

WYTHEVILLE NATIONAL FISH HATCHERY, VA.

Senator BIBLE. A letter from Senator Robertson, which I will place in the record, urges continued improvement at the Wytheville and Harrison Lake National Fish Hatcheries in Virginia.

(The letter referred to follows:)

U.S. SENATE,
COMMITTEE ON BANKING AND CURRENCY,
*February 18, 1964.*

Mr. PAUL R. EATON,
*Clerk, Subcommittee on Interior, Committee on Appropriations,*
*U.S. Senate, Washington, D.C.*

DEAR PAUL: Frankly, I was surprised when I found that the President included in his budget for fiscal year 1965 no funds whatever to proceed with the Fish and Wildlife construction projects at Wytheville and Harrison Lake, Va. These are both vital fish stations and it would be poor economy not to proceed with the current construction plans.

When the Fish and Wildlife Service appears before the Interior Appropriations Subcommittee on February 27, please have someone to ask for me that they state what is needed to prudently continue the construction work at these two fish hatcheries.

With best wishes, I am,
Sincerely yours,

A. WILLIS ROBERTSON.

Senator BIBLE. Will you please supply for the record a statement with regard to each of these hatcheries, and include in those statements the work and its cost which needs to be done in the coming fiscal year?

Mr. JANZEN. I will be glad to do that.

(The statement referred to follows:)

NATIONAL FISH HATCHERY, WYTHE COUNTY, VA.

Funds were provided in fiscal year 1961 to initiate construction of a new National Fish Hatchery in Wythe County, Va. This station will replace the old Wytheville Hatchery established in 1879. Rehabilitation of the existing hatchery was considered impracticable because of a steady decline in the water supply, both as to quantity and quality, together with advanced deterioration of physical facilities and a topographically undesirable site.

Trout produced at this new station will be stocked in water on State and Federal lands. A large percentage of the fish allotted to waters on Federal lands will be stocked in the Jefferson National Forest, an area of some 2,364,881 acres, in accordance with cooperative agreements with the U.S. Forest Service and the States concerned. This station will also supply trout eggs to other national fish hatcheries for rearing and subsequent stocking. It is estimated that 90 percent of the cold-water sport fishery in Virginia is supported by stocking of hatchery fish. By 1976, it is expected that fishing pressure on trout populations in this State will result in a 100-percent increase in requirements for hatchery fish.

Funds appropriated in fiscal year 1961 ($150,000) have been obligated for site acquisition, water rights, preliminary engineering, and installation of water supply lines. Congress appropriated an additional $159,000 in fiscal year 1963 and $205,000 in fiscal year 1964 for buildings, raceways, roads, and other hatchery

facilities. Bidding schedules for this construction are being circulated at the present time and contracts are expected to be let in early March 1964.

Additional funds are required to complete development at this station as outlined below in the amount of $326,000. On completion of development the new station will have a potential production in excess of 100,000 pounds of trout annually.

*Funds needed for the program*

| | |
|---|---|
| First phase: | |
| Four residences with single garages | $80,000 |
| Garage and storage building | 28,000 |
| Oil, paint, and chemical building | 5,000 |
| Roads, grading, and fencing | 27,000 |
| Domestic water and sewage facilities | 20,000 |
| Equipment (fish cultural and automotive) | 30,000 |
| Subtotal | 190,000 |
| Second phase: | |
| Concrete raceways (8 feet by 100 feet) double | 106,000 |
| Floodlights and landscaping | 20,000 |
| Equipment (fish cultural and maintenance) | 10,000 |
| Subtotal | 136,000 |
| Total funds needed | 326,000 |

HARRISON LAKE NATIONAL FISH HATCHERY

The Harrison Lake National Fish Hatchery was established in 1934 to provide warm-water fish for farm ponds and reservoirs for a large area in eastern Virginia. Since the original construction only minor changes have been made to the hatchery facilities, although there has been a major change in production requirements.

The area served by the hatchery has been increased to include approximately half of the State of Maryland. In addition to this, four species of fish are now being produced (bass, bluegill, redear, and channel catfish), whereas 15 years ago only two species were propagated.

Current studies by a Federal agency show approximately 1,200 to 1,400 farm ponds being constructed annually. Reclamation of lakes and ponds is increasing and now averages in excess of 200 acres a year. It is predicted that 6,300 acres of water will be impounded by public and private enterprise annually throughout the next decade. These waters, which are within the distribution area of the Harrison Lake Hatchery, will require the stocking of fish from a hatchery source.

Recognizing the need, Congress appropriated $84,000 in fiscal year 1964 to complete the first phase of a modernization and improvement program. This included construction of a new residence, fertilizer and chemical storage building, repairs to the office building, and the renovation of the water supply canal.

To continue the improvement of the hatchery as planned, funds in the amount of $78,000 are needed which include the following items:

*Funds needed for the program*

| | |
|---|---|
| Replace pond supplies and drainlines | $40,400 |
| Gravel pond levees | 8,000 |
| Concrete steps in ponds | 3,000 |
| Rebuild and blacktop station roads | 23,200 |
| Install parking area | 3,400 |
| Total cost of the program | 78,000 |

CHERAW NATIONAL FISH HATCHERY, SOUTH CAROLINA

Senator BIBLE. Again this year Senator Johnston has expressed an interest in completing the redevelopment program at the Cheraw National Fish Hatchery, South Carolina. I will place his letter asking this in record.

(The letter referred to follows:)

U.S. SENATE,
COMMITTEE ON POST OFFICE CIVIL SERVICE,
*February 25, 1964.*

Senator CARL HAYDEN,
*Chairman, Appropriations Committee,*
*U.S. Senate, Washington, D.C.*

DEAR SENATOR: This letter is to request that there be inserted in the Department of the Interior appropriations bill an item providing $61,000 for continued improvement of the Cheraw Fish Hatchery, Cheraw, S.C. This expenditure has been substantiated by the Department of the Interior.

With kind regards, I am,
Sincerely,

OLIN D. JOHNSTON.

Senator BIBLE. Would you supply for the record a statement showing what work still must be done and its cost?

Mr. JANZEN. We will do that, sir.

(The statement referred to follows:)

DEPARTMENTAL STATEMENT

The Cheraw National Fish Hatchery was established in 1944 to assist in maintaining the warm water fishery resource of northeastern South Carolina. The distribution area has been subsequently enlarged and now includes 21 counties in South Carolina and 23 counties in North Carolina. Since World War II, the farm pond construction program has been accelerated throughout the country. This is particularly true in the Southeastern States, where management of farm ponds is also highly developed. Initial stocking of new ponds and management stocking of existing ponds has placed an increasingly heavy demand on the production capabilities of the Cheraw station. At the present time, the Cheraw hatchery produces five species of warm water fish; bluegill, redear sunfish, largemouth bass, speckled bullhead, and white catfish.

In order to produce efficiently the numbers of fish required for management stocking needs and to provide other necessary station facilities, it is necessary to undertake an improvement and redevelopment program at the Cheraw hatchery. Congress appropriated $159,000 in fiscal year 1964 to initiate this program. These were the first construction funds available for this station since the date of establishment. Work financed by this appropriation—pond repair and development, water supply and drainage lines, and residences for permanent employees—will be accomplished by contract this season.

An additional $61,000 is required to complete the redevelopment program. These funds are needed to construct a combination building, repair roads, and landscape station grounds.

*Funds needed for the program*

| | |
|---|---|
| Combination building (display room, fish food preparation room, laboratory, public toilets) | $28,000 |
| Roads | 21,000 |
| Landscaping | 4,000 |
| Equipment | 8,000 |
| Total funds needed to complete the program | 61,000 |

CORTLAND NATIONAL FISH HATCHERY, NEW YORK

Senator BIBLE. I have here a letter from Mr. Harold G. Wilm, commissioner of the Conservation Department of the State of New York, urging construction of new and enlarged buildings at the Cortland, N.Y., station of the Bureau of Sport Fisheries and Wildlife. I will place his letter in the record.

(The letter referred to follows:)

STATE OF NEW YORK,
CONSERVATION DEPARTMENT,
*Albany, February 19, 1964.*

Hon. CARL HAYDEN,
*Chairman, Senate Appropriations Committee,*
*Senate Office Building, Washington, D.C.*

DEAR SENATOR HAYDEN: I should urge your support of the budget request of the Bureau of Sport Fisheries and Wildlife of the Department of Interior for the construction of new and enlarged buildings at the Federal fish hatchery at Cortland, N.Y.

Our department participates in the work of the Cortland hatchery through a cooperative agreement with the Federal Government and Cornell University. This hatchery has for many years done outstanding research on the nutrition of fishes and served as a training station for Federal and State fish hatchery personnel.

The old frame buildings and facilities at the Cortland hatchery are obsolete and inadequate. New and expanded facilities are essential if this station is to continue to perform its important functions. The improved facilities will be of direct benefit to fish hatchery operations of the Federal Government and all the States.

Sincerely,

H. G. WILM, *Commissioner.*

Senator BIBLE. Please file for the record a statement indicating the needs at this station and the cost of doing the work.

Mr. JANZEN. We will do that.

(The statement referred to follows:)

DEPARTMENTAL STATEMENT

This station is operated jointly by the Division of Fish Hatcheries and the Division of Fishery Research and consists of the Eastern Fish Nutrition Laboratory, Cortland Inservice Training School and Cortland National Fish Hatchery. Intensified studies are conducted pertaining to fish nutrition and physiology, including the use of radioactive tracer materials. Results of these activities are published in the New York State Conservation Bulletin, "The Progressive Fish-Culturist," and in scientific journals, thus making this valuable information available to conservation agencies in the United States and abroad.

Selected promising personnel are given inservice training at the Cortland station each year. The training school is not limited to Bureau personnel, but extends its facilities to State conservation employees and fishery personnel from foreign governments—resulting in direct cooperation between the Bureau and State and foreign governments.

The Cortland station engages in an active cooperative agreement with the New York Conservation Department and Cornell University in effect since 1932. Research work on the graduate level is conducted at this installation by Cornell students.

Three species of trout are produced at this station and are stocked in Federal, State, and agricultural waters within the State of New York.

Facilities at the station are badly deteriorated and inadequate for the experimentation and training programs. The facilities have reached the point where their poor condition is also influencing the production of fish for stocking purposes. Several of the buildings were constructed over a hundred years ago and therefore maintenance costs have become exceptionally high and impractical. Unless funds are made available for the complete reconstruction of this installation, the research, training, and fish-cultural activities will be seriously handicapped, if not eventually terminated. The proposed reconstruction program has been designed to provide suitable facilities required to carry on the research and training programs and will result in a modern, efficient unit available for the production of fish, which in turn is essential to the research and training programs. This program will permit expansion of activities at a future date, if needed.

Recent drilling of test wells and other water exploration work indicate that sufficient water is available for the facilities proposed and future expansion if required.

*Funds needed for the program*

| | |
|---|---|
| Phase 1: | |
| Purchase 5 additional acres | $1,800 |
| Water supply and drain lines | 61,800 |
| Wells, pumps, and lines | 11,500 |
| Replace 18 raceways | 115,000 |
| Replace 2 brood ponds | 20,000 |
| Subtotal | 210,100 |
| Phase 2: | |
| Replace hatchery building | 138,000 |
| Replace laboratory building | 230,000 |
| Remove old buildings | 11,500 |
| Subtotal | 379,500 |
| Phase 3: | |
| Replace residences (3) | 60,000 |
| Student quarters (4 duplexes) | 122,000 |
| Garage (8 stalls) | 16,000 |
| Replace oil and paint storage building | 2,300 |
| Subtotal | 200,300 |
| Phase 4: | |
| Replace domestic water and sewage systems | 10,000 |
| New domestic water and sewage system | 7,300 |
| Replace and relocate entrance road | 34,500 |
| Surface parking areas | 12,000 |
| Landscaping and fire lanes | 2,500 |
| Fencing | 2,500 |
| Equipment for laboratory, school, quarters | 116,300 |
| Subtotal | 185,100 |
| Total program | 975,000 |

OURAY AND BEAR RIVER CONSTRUCTION PROJECTS

Senator BIBLE. There will be included in the record a statement prepared by Senator Bennett of Utah with regard to the Ouray National Wildlife Refuge and the Bear River Migratory Bird Refuge road.

(The statement referred to follows:)

OURAY NATIONAL WILDLIFE REFUGE

Mr. Chairman, I appreciate this opportunity to testify concerning the development of the Ouray National Wildlife Refuge in Utah.

The Department of Interior budget for fiscal year 1965 includes $115,000 for buildings and the construction of dikes and water control facilities at the Ouray National Wildlife Refuge. However, additional development work must and can be accomplished at this refuge in fiscal year 1965 in order to keep within the timetable for the development of this important wildlife conservation project. An additional sum of $232,400 is needed for the following items:

| | |
|---|---|
| Boundary fencing (33 miles) | $32,400 |
| Additional buildings, including residences, sanitary system, headquarters roads and parking, oil and paint storage building, gasoline storage tanks, water supply system, and electric system | 86,500 |
| Canals, dikes, water control structures, riprap, gravel surfacing dikes, and pumping facilities in Leota Bottoms | 113,500 |
| Total additional required | 232,400 |

Allow me briefly to retrace the history and outline the importance and the need for early development of this wildlife refuge.

The Ouray National Wildlife Refuge was established on November 20, 1960, by former Secretary of the Interior Fred A. Seaton. Thereafter the Bureau of Sports Fisheries and Wildlife proceeded to acquire the necessary acreage and to prepare a master development plan. The master development plan was completed in July 1962, but because of some delays in the land acquisition program, development actually did not begin until fiscal year 1964 when the committee at my request wisely added funds to initiate construction, thereby also securing the necessary water rights which were contingent upon approval and incorporation of the development plan. The committee approved $250,000 last year, which unfortunately was cut to $133,000 in the conference bill.

The Ouray National Wildlife Refuge is located in Uintah County, Utah, 26 miles southwest of Vernal and 1 mile north of the small Indian village of Ouray, and extends north along either side of the Green River for 7½ miles. It is technically located in the Pacific flyway, but it is a mere 30 airline miles to Colorado and the central flyway.

The committee is aware of the declining population of the Great Basin Canada goose flock. The refuge will take up the void in Canada goose production areas that will be lost as a result of Flaming Gorge Reservoir. If a suitable area is not provided at an early date to offset this loss, there is question as to the future status of the Great Basin Canada goose flock.

Ouray will provide habitat conditions capable of producing at least 1,000 geese each year with sufficient food to maintain a peak population of 3,000 during migration and an annual use-day population of 400,000. Moreover, it is expected the refuge will produce 13,000 ducks each year, provide food for peak populations of 75,000 ducks during fall migration, with overall duck-use days totaling 4,250,000.

In addition to its importance as a prime waterfowl production area and a resting and feeding area for migratory birds, the refuge will protect and maintain the upland game birds, big game, and furbearer populations that now use the area. Ultimately the refuge also will provide hunting and recreational facilities.

The total cost of developing the Ouray refuge is estimated at $1,300,000, which it is hoped can be accomplished over a 5-year period. The additional $232,400 is urgently needed this year to bring the construction schedule to a reasonable point on that timetable. If additional funds are not appropriated, development activity at the refuge will not continue through fiscal year 1965 and much valuable time will be lost with a consequent detrimental effect on the wildlife population the refuge is designed to serve.

In view of the urgent need for early development of this important refuge, I strongly urge the committee to include the required addition of $232,400 in the Interior appropriations bill.

### Bear River Migratory Bird Refuge Road

A second item on which I would like to testify is the road from Brigham City, Utah, to the popular Bear River Migratory Bird Refuge. This 14-mile road extends from just west of Brigham City to the refuge headquarters. Both the Bureau of Sport Fisheries and Wildlife and the Box Elder County Commission have surveyed the road and report that 11½ miles are in poor condition and in need of repairs. Some sections are in extremely bad condition and in some places are hardly passable.

Mr. Daniel H. Janzen, the Director of the Bureau of Sport Fisheries and Wildlife, indicated to me in a letter of February 20, 1962, that the Bureau feels a "moral responsibility" to cooperate with county officials to "whatever extent possible" in rebuilding the Bear River Road. No doubt his statement is based upon the fact that the road is the sole access to the refuge and the great bulk of its use comes from Government employees and others using the refuge. Over 20,000 people visited the refuge last year.

The Box Elder County officials have estimated the road could be placed in good condition by adding a new gravel base along with a 3-inch bituminous surface. They also believe the road should be widened to 24 feet and the bridge across Reeder's Canal replaced and relocated to remove a hairpin curve in the road at that point. The total cost of the road improvements outside of the refuge boundaries is estimated at $105,000. The budget last year

contained $12,000 for repair and refurbishing of roads directly within the refuge.

Box Elder County is not in a position to build a road because its funds are already committed elsewhere to roads which serve residents of the county and which have a higher priority than the Bear River Refuge access road, which is essentially a service road for the refuge. Although the county does not have funds to rebuild the road, it is willing to cooperate fully and will furnish county labor and equipment to rebuild the road. It is also willing to maintain the road in the future just as it has in the past.

At the present time, Box Elder County realizes only about $100 in taxes from this vast 64,000-acre area which has almost totally been removed from the county property tax rolls.

As the committee will recall, I testified both last year and the year before in support of funds to rebuild this road, and the committee both times added a sum of $105,000 for this purpose, only to have the funds deleted by the House in conference. This is a most worthwhile cooperative project, and I urge the committee to appropriate $105,000 for this purpose, as it has done before. As the committee is aware, Federal participation in this kind of a road program for national refuges has recent precedents.

Thank you.

Senator BIBLE. Do you need additional funds for work at these points during the coming year? If so, will you please supply statements indicating the work to be done, the total costs, and the amount needed in fiscal year 1965.

GENERAL ADMINISTRATIVE EXPENSES

Now, Mr. Janzen, I will get back into the item of "General administrative expenses." I imagine these are properly directed to you. The budget estimate for 1965 for general administrative expenses is $1,384,000, an increase of $25,000 over the amount available last year.

All of the $25,000 is attributable to increased pay cost for fiscal year 1964 positions. The justification will be placed in the record and we will make the insertion at this point.

(The justification referred to follows:)

HIGHLIGHT STATEMENT

The purpose and long-range objectives of this program are to provide executive direction and general administrative services for the Bureau. Executive direction consists of the services of the Director, two associate directors and secretaries at Washington, D.C. headquarters and a regional director and secretary at each regional office. General administrative services include personnel, budget and finance, property management, and related business management activities.

The 1964 program provides increases for costs of processing punched bookkeeping machine tape and for an internal audit function that is needed to meet requirements of law and an objective of the joint financial management improvement program.

The 1965 program provides increases for more adequate servicing of Bureau programs and specialized assistance in contracting.

The estimates for this appropriation include a net increase of seven authorized permanent positions. This increase is offset by reductions in permanent positions in other appropriations. There is no increase over 1964 in total authorized permanent positions of the Bureau.

There is no substantive language change.

*General administative expenses*

| | |
|---|---|
| Appropriation, 1963 | $1,292,750 |
| Appropriation, 1964 | 1,359,000 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | | |
|---|---|---|
| Departmental expense: | | |
| Replacement of bookkeeping machine | −$12,000 | |
| To provide for increased pay costs for fiscal year 1964 positions | +8,000 | |
| Improved services | +12,000 | |
| Additional contracting workload | +10,000 | |
| | | +18,000 |
| Regional office expense: | | |
| Replacement of bookkeeping machines | −58,000 | |
| To provide for increased pay costs for fiscal year 1964 positions | +17,000 | |
| Improved services | +33,000 | |
| Additional contracting workload | +15,000 | |
| | | +7,000 |
| Net increase, 1965 | | 25,000 |
| Budget estimate, 1965 | | 1,384,000 |

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 | | |
|---|---|---|---|---|
| | | Total appropriation | Transfers [1] | Amount available |
| Departmental expense | $369,506 | $401,000 | | $401,000 |
| Regional office expense | 922,592 | 958,000 | | 958,000 |
| Unobligated balance lapsing | 652 | | | |
| Total | 1,292,750 | 1,359,000 | | 1,359,000 |

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Departmental expense | $369,506 | $401,000 | $419,000 | $18,000 | $8,000 | +$10,000 |
| Regional office expense | 922,592 | 958,000 | 965,000 | 7,000 | 17,000 | −10,000 |
| Unobligated balance lapsing | 652 | | | | | |
| Total | 1,292,750 | 1,359,000 | 1,384,000 | 25,000 | 25,000 | |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*Analysis by activities (total funds)*

| Appropriation | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| General administrative expenses | $1,292,098 | $1,359,000 | $1,384,000 | +$25,000 |
| Federal aid in fish restoration and management | 38,385 | 38,600 | 34,800 | −3,800 |
| Federal aid in wildlife restoration | 89,232 | 92,900 | 97,900 | +5,000 |
| Permanent appropriations from national wildlife refuge receipts | 58,491 | 78,200 | 76,800 | −1,400 |
| Migratory bird conservation account | 65,682 | 57,000 | 57,000 | |
| Construction, general, Corps of Engineers, civil | 23,312 | 20,000 | 20,000 | |
| General investigations, Corps of Engineers, civil | 3,732 | 12,000 | 8,400 | −3,600 |
| Construction and rehabilitation, Bureau of Reclamation | 11,460 | 12,300 | 13,400 | +1,100 |
| General investigations, Bureau of Reclamation | 11,664 | 13,600 | 14,800 | +1,200 |
| Construction of recreational and fish and wildlife facilities, Bureau of Reclamation | 15,664 | 13,100 | 9,000 | −4,100 |
| Advances and reimbursements | 70,214 | 76,300 | 107,900 | +31,600 |
| Total, direct appropriation | 1,292,098 | 1,359,000 | 1,384,000 | +25,000 |
| Other funds | 387,836 | 414,000 | 440,000 | +26,000 |
| Grand total | 1,679,934 | 1,773,000 | 1,824,000 | +51,000 |

*Justification*

| Activity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. Departmental expense | $369,506 | $401,000 | $419,000 | $18,000 | $8,000 | $10,000 |
| 2. Regional office expense | 922,592 | 958,000 | 965,000 | 7,000 | 17,000 | −10,000 |
| Total | 1,292,098 | 1,359,000 | 1,384,000 | 25,000 | 25,000 | |

[1] To provide for increased pay costs for fiscal year 1964 positions.

The estimate of $1,384,000 and 151 permanent positions is an increase of $25,000 and 7 permanent positions over 1964. This increase includes $25,000 for increased pay costs. In addition a nonrecurring item of $70,000 for accounting equipment in the 1964 appropriation is needed for other purposes in 1965.

*Need for increase*

The appropriation increase of $25,000 plus the nonrecurring item of $70,000 provides a total increase of $95,000 and seven permanent positions is needed for the following: $25,000 is needed for increased pay costs for fiscal year 1964 positions. $70,000 and seven permanent positions are needed for program increases consisting of (1) $45,000 and four permanent positions to service more adequately Bureau programs and (2) $25,000 and three permanent positions for specialized assistance in contracting.

(1) *Servicing Bureau programs, $45,000, four permanent positions.*—Bureau programs have increased in number of employees and dollar volume since 1959, the first year of appropriations for a separate Bureau administrative services organization. In that year employees numbered 2,571 and programs amounted to $52,409,000. These figures had climbed to 3,832 employees and $81,620,000 in 1964 and the 1965 estimate is for the same number of employees and $81,881,000. The following ratios of administrative employment and appropriations to total Bureau employment and appropriations are taken from page SFW–119 and indicate that administrative appropriations have barely kept pace with the growth of the Bureau.

*Administrative ratio (percent)*

| Year | Positions | Funds |
|---|---|---|
| 1959 | 6.25 | 2.41 |
| 1963 | 5.25 | 2.28 |
| 1964 | 4.91 | 2.17 |
| 1965 (estimate) | 5.09 | 2.23 |

An increase of $45,000 and four permanent positions is needed, in addition to the increases in (2) below, to establish a more adequate position ratio of 5.09 percent and a funds ratio of 2.23 percent in 1965. Aside from these statistics, this increase will provide better administrative support for Bureau programs and contribute much to their effectiveness, efficiency, and economy.

(2) *Specialized assistance in contracting, $25,000; three permanent positions.*—Contracting for supplies, equipment, services, and construction has increased vastly in volume and complexity. In 1959 the first year of appropriations for a separate Bureau administrative services organization, the total dollar value of procurement as reported to the General Services Administration (SF–37) amounted to $6,435,000. In 1963 this figure had climbed to $14,191,000. Most of this volume represents contracts that are advertised, awarded, and administered by the administrative services organization. Aside from the increase in volume, contracts have been increasing in complexity in all phases. Bidders' lists have lengthened with increased interest in Government business. Contract-

ing now involves increased emphasis on such matters as small business set-asides, preference to distressed labor areas, nondiscrimination, safety and Davis-Bacon wage regulations. Disputes, contractor's claims, and findings of fact add to the problems of contract administration. The volume of work has increased to such an extent that additional staff is necessary to properly handle all administrative phases of contracting and thereby protect the Government's interest in getting the best contract performance and value received from the substantial amounts spent on procurement. The estimate is for one GS–11 contract specialist in the procurement sections of two regional offices and the Washington office.

*Plan of work*

The estimate is for executive direction and general administrative services at the Washington headquarters and regional offices. Executive direction is provided by the Director and two Assistant Directors at Washington and a regional director at each regional office. Executive direction consists of overall management control including internal audit, program coordination and decisionmaking for all organizational units and functions of the Bureau. General administrative services are provided by the Division of Administration consisting of an office of the Assistant Director—Administration and four service branches in Washington and an administrative officer and staff at each regional office. Administrative services consist of inspection of field offices; development, presentation and execution of budgets; making all payments and collecting all amounts due; maintaining payroll, retirement, and leave records; maintaining accounts for control of funds and recording assets, liabilities, and income and expense; preparing financial reports; recruiting, training, placing, classifying, and servicing employees; maintaining administrative and other manuals for Bureau guidance; forms and reports control; organization and staffing studies; centralized mail, filing and communication services; procurement of supplies, equipment and services; contracting for construction; and control of, utilization and disposition of property.

The 1965 estimate of $1,384,000 will provide executive direction and general administrative services to the programs financed by the "Management and investigations of resources," "Construction," "Migratory bird conservation account" (annual definite) appropriations totaling $46,012,000. This is a ratio of 3 percent. Executive direction and general administrative services for programs financed by permanent indefinite appropriations, appropriation transfers and advances and reimbursements are provided for by these funds on the basis of predetermined cost or assessment ratios. These ratios are 4 percent in the case of funds that are available primarily for salaries and expenses and 0.3 percent of funds that are available for other purposes such as land acquisition and payments to States. The total estimate for executive direction and administrative services from these sources in 1965 is $440,000 which added to the $1,384,000 estimate for the "General administrative expenses" appropriation makes a total estimate of $1,824,000. A summary table comparing the total 1965 estimate with 1964 follows:

*General administrative services program*

[In thousands]

| Source of funds | Estimate, 1964 | Estimate, 1965 | Increase |
|---|---|---|---|
| 1. "General administrative expenses" appropriation | $1,359 | $1,384 | $25 |
| 2. Financing from permanent indefinite funds, transfer appropriations and advances and reimbursements | 414 | 440 | 26 |
| Total general administrative services program | 1,773 | 1,824 | 51 |

Following is a table showing the specific sources and details of computation of the 1965 estimate of $440,000 in supplementary financing for general administrative services:

*Financing from permanent indefinite funds, transfer appropriations, and advances and reimbursements, 1965*

[In thousands]

| Appropriation or fund | Total available | Assessable at 4 percent | Assessable at 0.3 percent | Total assessment |
|---|---|---|---|---|
| Migratory bird conservation account (permanent indefinite) | $4,000 | $1,220 | $2,780 | 57.0 |
| Expenses for sales | 115 | | | |
| Federal aid in fish restoration and management | 6,000 | 469 | 5,531 | 34.8 |
| Federal aid in wildlife restoration | 16,000 | 1,351 | 14,649 | 97.9 |
| Management of national wildlife refuges | 1,918 | 1,918 | | 76.8 |
| Corps of Engineers, construction | 500 | 500 | | 20.0 |
| Corps of Engineers, general investigations | 210 | 210 | | 8.4 |
| Bureau of Reclamation, construction and rehabilitation | 334 | 334 | | 13.4 |
| Bureau of Reclamation, general investigations | 370 | 370 | | 14.8 |
| Bureau of Reclamation, fish and wildlife facilities | 1,300 | 140 | 1,160 | 9.0 |
| Advances and reimbursements | 2,698 | 2,698 | | 107.9 |
| Other | 302 | | | |
| Total | 33,747 | 9,210 | 24,120 | 440.0 |

The total estimate for executive direction and general administrative services is broken down by organizational units, as follows:

| | 1964 | | 1965 | | Increase | |
|---|---|---|---|---|---|---|
| | Positions | Funds | Positions | Funds | Positions | Funds |
| Departmental: | | | | | | |
| Office of the Director | 6 | $95,000 | 6 | $100,000 | | $5,000 |
| Internal Audit | 3 | 30,000 | 3 | 31,000 | | 1,000 |
| Division of Administration | 2 | 28,000 | 2 | 29,000 | | 1,000 |
| Branch of Budget and Finance | 16 | 150,000 | 16 | 153,000 | | 3,000 |
| Branch of Management Analysis | 4 | 47,000 | 5 | 52,000 | 1 | 5,000 |
| Branch of Personnel Management | 10 | 96,000 | 10 | 98,000 | | 2,000 |
| Branch of Property Management | 14 | 85,000 | 15 | 93,000 | 1 | 8,000 |
| Subtotal, departmental | 55 | 531,000 | 57 | 556,000 | 2 | 25,000 |
| Regional offices: | | | | | | |
| Region 1, Portland, Oreg | 18 | 247,000 | 19 | 252,000 | 1 | 5,000 |
| Region 2, Albuquerque, N. Mex | 31 | 261,000 | 32 | 266,000 | 1 | 5,000 |
| Region 3, Minneapolis, Minn | 31 | 264,000 | 32 | 270,000 | 1 | 6,000 |
| Region 4, Atlanta, Ga | 31 | 268,000 | 32 | 273,000 | 1 | 5,000 |
| Region 5, Boston, Mass | 22 | 202,000 | 23 | 207,000 | 1 | 5,000 |
| Subtotal, regional offices | 133 | 1,242,000 | 138 | 1,268,000 | 5 | 26,000 |
| Total | 188 | 1,773,000 | 195 | 1,824,000 | 7 | 51,000 |

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $1,292,098 | $1,359,000 | $1,384,000 | $25,000 |
| Unobligated balance lapsing | 652 | | | |
| Appropriation | 1,292,750 | 1,359,000 | 1,384,000 | 25,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 1,008,938 | 1,010,000 | 1,091,000 | 81,000 |
| 12 Personnel benefits | 75,613 | 76,000 | 80,000 | 4,000 |
| 21 Travel and transportation of persons | 24,733 | 30,000 | 32,000 | 2,000 |
| 22 Transportation of things | 813 | 2,000 | 2,000 | |
| 23 Rent, communications, and utilities | 14,218 | 16,000 | 16,000 | |
| 24 Printing and reproduction | 337 | 5,000 | 5,000 | |
| 25 Other services | 18,287 | 55,000 | 55,000 | |
| Services of other agencies | 77,912 | 80,000 | 80,000 | |
| 26 Supplies and materials | 6,608 | 15,000 | 15,000 | |
| 31 Equipment | 64,639 | 70,000 | 8,000 | −62,000 |
| Total Obligations | 1,292,098 | 1,359,000 | 1,384,000 | 25,000 |

1965 REQUESTED BUDGET

Senator BIBLE. Actually, your fiscal year 1965 budget represents an increase of $95,000 over the amount appropriated last year inasmuch as in the last year's budget there was a $70,000 nonrecurring item for replacement of bookkeeping machines.

You propose to use this $70,000 for seven permanent positions, four to service more adequately Bureau programs and three for specialized assistance in contracting.

Please be more specific in describing just why these additional employees are necessary.

Mr. CORBIN. I will answer that, Mr. Chairman. As you have indicated, the net increase is $25,000 which is for pay act costs. We are requesting permission to use the $70,000 that was spent this fiscal year for bookkeeping machines next year for personnel and general expenses.

NEED FOR ADDITIONAL PERSONNEL

The need for this additional personnel partly arises from the increased program that we expect from the budget, the program items in this budget and particularly to service the pesticide program where we intend to do a considerable amount of work by contract.

Senator BIBLE. That is the three?

Mr. CORBIN. That is the contracting officers. In the other areas administrative work is increasing and the programs for fiscal year 1965 are larger and we would anticipate that in one or two of our offices we would need a payroll clerk, a personnel worker or secretary.

We have provided for four additional positions just to carry on the increased program of work that we expect. We expect our administrative work to run about 10 percent higher in 1965 than it was in 1964.

Senator BIBLE. Why would that be a jump under almost identically the same budget?

INCREASE IN RESEARCH, CONTRACTING, AND ADMINISTRATION

Mr. CORBIN. The context of our budget varies a little bit. In 1965 there will be more of the research type of work which will involve, as I said, contracting and the more minute and detailed type of administrative work.

Now, on construction; yes, it is simpler to handle but there is a shift in emphasis.

I might say also that our administrative staff has shown, we believe, to have a rather good record of manpower utilization. In 1959, for example, we had 6 administrative employees for each 100 people employed.

Senator BIBLE. What was that figure again?

Mr. CORBIN. 6.25. In 1965 that will be reduced to five. In 1959 the ratio of our administrative funds to our total program operations was 2.41 percent.

In 1965 it is 2.23. I think it is a fair statement that the administrative work of the Government is getting more complex every year and in behalf of our staff, I think it is fair to state that we have become more efficient. Our records have shown that.

TOTAL ADMINISTRATIVE STAFF

Senator BIBLE. What is your total strength in your general administration? How many men and women are you talking about in your administrative staff?

Mr. CORBIN. 195 in total. Now, that includes the executive staff, our directors and our regional directors as well as our administrative people.

Senator BIBLE. 195?

Mr. CORBIN. That is right.

Senator BIBLE. How many of the 195 are located in Washington and how many in the field?

Mr. CORBIN. There are 57 in Washington and 138 in the field.

Senator BIBLE. You had another thought I think you wanted to add there. You are giving me these percentages.

Mr. CORBIN. Only the general thought, and I believe I did state it before, that I believe it is a correct statement to say, certainly we think so, that our work is becoming more complex and our record does show that we are handling more money and more people with less administrative money in pro rata and less personnel in pro rata during the last 5 years than we ever did before.

RESEARCH REQUIRES MORE PERSONNEL THAN LAND ACQUISITION

Mr. JANZEN. I might mention here also that in this program adjustment we did reduce our land acquisition budget by $2 million. Land acquisition requires a much lower amount of administrative overhead because the major amount of land acquisition costs goes into the actual land purchase costs.

If you replace a part of the land acquisition budget with a research operation, it does require more administrative overhead work generally. Also the mere shifting of program requires more administrative overhead. There is no question about this.

SELECTION OF TYPE OF EMPLOYEE

Senator BIBLE. This question should probably be directed to you as the Director. If the committee should decide only to approve the four employees or the three—the four employees to more adequately staff the Bureau programs or the three for specialized assistance in contracting—which would be more important to the operation of the Bureau of Sports Fisheries?

Mr. CORBIN. If I had to make a choice I would take the four for general administrative work rather than for the specialized contract work.

Senator BIBLE. Do you agree with that?

Mr. JANZEN. Yes; I will accept his word on that because he is responsible for this operation.

Senator BIBLE. Why do you say that? Why do you make that choice?

Mr. CORBIN. I say that on the basis that we can always use generalists. Sometimes generalists can do specialists' work. We would rather have the seven. If we have to get by with the four, I would take the payroll clerk where we need the payroll clerk more than

the contract man. Or we could have the clerk do the payrolls and do some contract assistance, too.

MIGRATORY BIRD CONSERVATION ACCOUNT

Senator BIBLE. The Bureau estimates its needs for acquisition of wet lands for preservation of waterfowl to be $8 million in the direct appropriations for 1965 as compared with $10 million made available in 1964.

In addition, the Bureau expects that $4 million will be available from the sale of migratory bird hunting stamps; which provides a total of $12 million. The justification will be printed in the record at this point.

(The justification referred to follows:)

HIGHLIGHT STATEMENT

The purpose and long-range objectives of this program are to provide over a 7-year period for an acceleration in the acquisition of wet lands for the preservation of waterfowl under the provisions of the act of October 4, 1961 (16 U.S.C. 715k–3–5). Funds provided under this appropriation supplement amounts available from the sale of migratory bird hunting stamps (16 U.S.C. 718).

The appropriation for 1963 initiated the program with $7 million, and with the $3,418,638 available from the sale of hunting stamps, provided a total of $10,418,638 for the acquisition of the following lands:

| | *Acres* |
|---|---|
| Refuges: | |
| Fee title | 63,253 |
| Leases | 13,366 |
| Refuge total | 76,619 |
| Waterfowl production areas: | |
| Fee title | 12,554 |
| Easements | 12,774 |
| Leases | 1,455 |
| Waterfowl production area total | 26,783 |
| Fiscal year total | 103,402 |

The program for 1964, consisting of an appropriation of $10 million and $4 million from hunting stamp sales, will provide $14 million for the acquisition of a minimum of 12 new refuge areas and a number of small waterfowl production areas totaling 207,000 acres in critical nesting, migration, and wintering areas.

In 1965 greater emphasis will be put on the acquisition of easements and leases for the waterfowl production area program, and if pending legislation for increased revenues to the States is passed, our acquisition goals for fee title of waterfowl habitat will be reached. With an appropriation of $8 million and $4 million from hunting stamp sales, it is anticipated that a total of 225,000 acres will be acquired.

*Migratory bird conservation account*

| | |
|---|---|
| Appropriation, 1963 (total available) | $7,000,000 |
| Appropriation, 1964 (total available) | 10,000,000 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | |
|---|---|
| Acquisition of refuges and other areas: To provide for continuation of the wetlands acquisition program (net decrease) | −2,000,000 |
| Budget estimate, 1965 | 8,000,000 |

*Analysis by activities (direct appropriation)*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 | | |
|---|---|---|---|---|
| | | Total appropriation | Transfers [1] | Amount available |
| Acquisition of refuges and other areas | $7,000,000 | $10,000,000 | | $10,000,000 |

*Analysis by activities (direct appropriation)*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | program |
| Acquisition of refuges and other areas | $7,000,000 | $10,000,000 | $8,000,000 | −$2,000,000 | +$34,000 | −$2,034,000 |

*Analysis by activities (total funds)*

| Activity and appropriation | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Acquisition of refuges and other areas: | | | | |
| Current definite | $7,000,000 | $10,000,000 | $8,000,000 | −$2,000,000 |
| Permanent indefinite | 3,418,638 | 4,000,000 | 4,000,000 | |
| Total | 10,418,638 | 14,000,000 | 12,000,000 | −2,000,000 |

*Advances to migratory bird conservation account, 1965*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Acquisition of refuges and other areas | $7,000,000 | $10,000,000 | $8,000,000 | −$2,000,000 | +$34,000 | −$2,034,000 |

[1] To provide increased pay costs for fiscal year 1964 positions (Public Law 87-793, Oct. 11, 1962).

The estimate for 1965 is $8 million, a decrease of $2 million under 1964 for the wetlands acquisition program.

*Plan of work*

The estimate of $8 million is needed to continue the expanded wetlands acquisition program authorized by the act of October 4, 1961 (16 U.S.C. 715k-3-5), which provides for the appropriation of not to exceed $105 million for a 7-year period for the acquisition of wetlands and other essential waterfowl habitat.

The items making up the $8 million are as follows:

(a) *Realty costs, $999,500.*—For location, ascertainment, and appraisal of areas and presentation of proposals to the Migratory Bird Conservation Commission; and, following approval of the Commission, negotiation, title verification, title clearance, and other expenses incident to the vesting of title to areas in the United States. There is no increase in permanent positions.

(b) *Engineering costs, $240,000.*—For the location and ascertainment of areas, drafting services, and other costs incident to the preparation of preliminary development plans, outline specifications, estimates, and topographic maps, engineering studies, and water rights investigations and filings, and other costs incident to preparing cases for presentation to the Migratory Bird Conservation

Commission; and, following approval by the Commission, cadastral surveys incident to the vesting of title in the United States. There is no increase in permanent positions.

(c) *Acquisition and rental of areas, $6,760,500.*—For costs of acquisition or rental of areas, including water rights, rights-of-way, easements, removal expenses of occupants, and other direct costs of acquiring the areas or rights therein.

The total estimate of $8 million will be merged with and supplement the $4 million estimate for the migratory bird conservation account from the sale of Federal migratory bird hunting stamps, and will provide a total of $12 million for 1965. This sum will provide for the acquisition of 225,000 acres of land, of which 85,000 acres will be for migratory waterfowl refuges. The remainder of 140,000 acres will be for the waterfowl production area program, with 45,000 acres acquired in fee, and 95,000 acres controlled by easements.

*Itemization of estimates*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $10,331,115 | $14,000,000 | $12,000,000 | −$2,000,000 |
| Unobligated balance brought forward | −567,485 | −655,008 | −655,008 | |
| Unobligated balance carried forward | 655,008 | 655,008 | 655,008 | |
| Appropriation: | | | | |
| Current definite | 7,000,000 | 10,000,000 | 8,000,000 | −2,000,000 |
| Permanent indefinite | 3,418,638 | 4,000,000 | 4,000,000 | |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 1,220,851 | 1,505,000 | 1,578,000 | 73,000 |
| 12 Personnel benefits | 88,655 | 117,000 | 121,000 | 4,000 |
| 21 Travel and transportation of persons | 202,319 | 277,000 | 301,000 | 24,000 |
| 22 Transportation of things | 6,908 | 15,000 | 15,000 | |
| 23 Rent, communications, and utilities | 52,623 | 66,000 | 66,000 | |
| 24 Printing and reproduction | 17,134 | 25,000 | 25,000 | |
| 25 Other services | 76,438 | 123,000 | 133,000 | 10,000 |
| Services of other agencies | 138,520 | 200,000 | 210,000 | 10,000 |
| 26 Supplies and materials | 32,255 | 44,000 | 54,000 | 10,000 |
| 31 Equipment | 34,269 | 52,000 | 57,000 | 5,000 |
| 32 Lands and structures | 8,461,189 | 11,566,000 | 9,430,000 | −2,136,000 |
| 41 Grants, subsidies, and contributions | 854 | 10,000 | 10,000 | |
| Total obligations | 10,331,115 | 14,000,000 | 12,000,000 | −2,000,000 |

STATUS OF LAND ACQUISITION PROGRAM

Senator BIBLE. The committee will be glad to have such comments as you care to make on this program, and will appreciate your placing in the record your statement of accomplishments for the acquisition of wet lands with funds provided in prior years.

Mr. JANZEN. We will do that.

(The statement referred to follows:)

LAND ACQUISITION GOAL

The goal of the land acquisition program for the preservation of the waterfowl resource is a total of 8 million acres under Federal control. As of now, 3,609,475 acres are under Federal control. It is proposed to acquire, before the end of the 7-year program for which the $105 million loan was authorized, 2,386,796 acres. This leaves for acquisition 2,003,729 acres after fiscal year 1968. Of the total 4,390,525 acres still be be acquired, 3,259,887 acres are to be acquired in fee and easements for 1,130,638 acres.

Since October 4, 1961 (date of approval of the loan fund act), 138,909 acres have been acquired or contracted for in fee, and easements covering 43,986 acres have been purchased. Acquisition progress in fiscal year 1965 is estimated to total 225,000 acres for migratory waterfowl, of which 85,000 acres will be in refuges and 140,000 acres in waterfowl production areas.

### Need for Passenger Motor Vehicles and Aircraft

Senator Bible. There will be placed in the record a statement setting forth the need for purchase of passenger motor vehicles and aircraft for the Bureau of Sport Fisheries and Wildlife, and also for the Bureau of Commercial Fisheries.

(The statement referred to follows:)

### Passenger Motor Vehicles

The estimates of the Bureau of Sport Fisheries and Wildlife for the fiscal year 1965 contemplate the purchase of 121 passenger motor vehicles, 103 of which are for replacement, as follows:

| Type | Replacements | Additions | Total requested |
|---|---|---|---|
| Police-type automobiles | 66 | | 66 |
| Standard-type automobiles | 26 | 11 | 37 |
| Total automobiles | 92 | 11 | 103 |
| Station wagons | 11 | 7 | 18 |
| Total | 103 | 18 | 121 |

All of the vehicles to be replaced will meet the age and mileage replacement standards, or both. Many will have run over 100,000 miles in hard service. In estimating these requirements, careful consideration has been given to the effective use of the services of interagency motor pools where their locations and equipment permit.

The principal use for the police-type passenger motor vehicles is by U.S. game management agents. Police-type vehicles are necessary to effectively carry out responsibilities for enforcing fish and game laws including the Black Bass Act (16 U.S.C. 851–856); the Bald Eagle Act (16 U.S.C. 668–668d); the Lacey Act (16 U.S.C. 701–2); the Migratory Bird Treaty Act (16 U.S.C. 703–711) and the Criminal Code (18 U.S.C. 41–44). Enforcing these laws involves police-type work of patrol and pursuit and apprehension of law violators. Vehicles used by the Bureau for law enforcement average 30,000 miles per year. Much of this mileage is on unimproved roads and over rough and hazardous terrain. Power is needed to travel in snow or on ice and pull out of mud, sand, and deep ruts. Power is needed to get in and out of areas where violations are likely to occur and for pursuit of violations are likely to occur and for pursuit of violators with rapid acceleration and sustained high speeds. The work often involves using the vehicles to haul cargo or boat trailers which can be done efficiently only with vehicles equipped for heavy duty.

The 11 additions of standard-type motor vehicles are needed primarily for the expanded pesticide research program and for the control of predatory animals and injurious rodents. The 26 replacements are for various Bureau programs and will provide safe and economical transportation in areas not serviced by motor pools.

The 18 station wagons, of which 7 are additions to the fleet, will be used principally by biologists, wildlife refuge managers and predator and rodent control operators for extensive driving, the hauling of personnel, scientific instruments, materials, and field equipment.

General Services Administration standards provide for replacement of passenger motor vehicles every 6 years or 60,000 miles. On an age basis this permits an economical replacement of the entire fleet in 6 years. On a mileage basis economical replacement is every 2 to 4 years. Replacement of vehicles in the number estimated for 1965, will permit maintenance of the fleet on an economical as well as a safe basis in accordance with replacement standards established by General Services Administration.

| Classification | Number of cars meeting replacement criteria | | | | Number of replacements requested in 1965 | | | |
|---|---|---|---|---|---|---|---|---|
| | Mileage | | Age | Total | Mileage | | Age | Total |
| | 60,000 to 80,000 | 80,000 or over | | | 60,000 to 80,000 | 80,000 or over | | |
| Automobiles | 100 | 20 | 6 | 126 | 77 | 15 | ---------- | 92 |
| Station wagons | 32 | 8 | 3 | 43 | 7 | 4 | ---------- | 11 |
| Total | 132 | 28 | 9 | 169 | 84 | 19 | ---------- | 103 |
| Additions to the fleet: | | | | | | | | |
| Automobiles | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | 11 |
| Station wagons | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | 7 |
| Total vehicles to be purchased | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | 121 |

### AIRCRAFT

The estimates include purchase authority for six new aircraft which are needed for replacement.

One replacement aircraft is needed in Alaska. There are 15 aircraft in Alaska engaged in sport fish and wildlife activities which are used for patrol and transportation of Bureau personnel to widespread areas having no other access. These aircraft are piloted by U.S. game management agents, biologists, refuge managers, predator control operators, and in a few instances by pilot-mechanics. Operations are largely in isolated areas where transportation facilities and roads are inadequate, making it necessary to rely on aircraft and boats. The nature of the work is such that good equipment is necessary in the interest of safety.

The five replacement aircraft for use in the contiguous 48 States are needed as follows: Three for use in enforcement activities in the Middle West, one for use in wildlife refuge activities, and one for river basin studies. Aircraft in the 48 States are used for waterfowl surveys; law enforcement; refuge management including plant control, seeding of waterfowl feeds, and crop depredation control work; and predator control.

No aircraft are used to transport personnel as a primary function.

| | |
|---|---|
| Aircraft to be purchased: | |
| Number | (6) |
| Gross cost | $122,500 |
| Aircraft to be exchanged: | |
| Number | (6) |
| Allowance | $18,500 |
| Net cost | $104,000 |
| Old aircraft still to be used | 28 |

### JUSTIFICATION FOR PASSENGER MOTOR VEHICLE REQUIREMENTS

The estimates for the Bureau of Commercial Fisheries for the fiscal year 1965 contemplate the purchase of 26 passenger motor vehicles. Twenty-one of the vehicles are for replacement, and five will be for addition to the fleet. All of the vehicles to be replaced will have met replacement standards.

Fourteen passenger cars and seven station wagons will be replacements. Eight of the 14 cars are for use by statistical agents in collecting fishery statistics; 2 are for use by field biologists engaged in conducting research programs in the Southeast; 1 is for use in the market development program being conducted in the Great Lakes region; 1 is for the conduct of field inspections in Alaska; and the remaining 2 are for law enforcement activities in the Pacific Northwest. Police-type vehicles are required for the enforcement function.

The seven station wagon replacements are to be used by field personnel engaged in the conduct of biological investigations. Vehicles of this type are necessary for transportation of field equipment and supplies.

The five additional vehicles required as passenger cars that are needed for the use of field personnel engaged in the Bureau's expanded pesticides research programs.

| Classification | Number of cars meeting replacement criteria | | | | Number of replacements requested in 1965 | | | |
|---|---|---|---|---|---|---|---|---|
| | Mileage | | Age | Total | Mileage | | Age | Total |
| | 60,000 to 80,000 | 80,000 and over | | | 60,000 to 80,000 | 80,000 and over | | |
| Automobiles | 19 | 11 | 13 | 43 | 3 | 6 | 5 | 14 |
| Station wagons | 9 | 3 | 5 | 17 | 2 | 3 | 2 | 7 |
| Total | 28 | 14 | 18 | 60 | 5 | 9 | 7 | 21 |
| New automobiles to be purchased | | | | | | | | 5 |
| Total vehicles to be purchased | | | | | | | | 26 |

IZEMBEK NATIONAL WILDLIFE RANGE

Senator BIBLE. Senator Bartlett has suggested these questions. What facilities are now on Izembek National Wildlife Range?

Mr. PARKER. Actually there are no facilities on Izembek. The building that is proposed to house the individual that is set up in the 1965 budget actually will be located at the Aleutian Refuge.

In effect, there are no facilities on Izembek.

Senator BIBLE. Have any funds been expended on Izembek?

MANAGEMENT AND OPERATIONS

Mr. PARKER. No. The 1965 budget is the first time we are asking for any money for Izembek. This is a management and operations item.

Senator BIBLE. Why is there a need this year for operation and maintenance funds in view of the action of Congress, specifically declining heretofore to make money available for this range?

PREVIOUS DENIAL OF FUNDS

Mr. PARKER. At that time we had put money in for the Arctic and for the Izembek Refuges. I think probably some of the concern was over the objection of the State fish and game department to the implementation of management on the Arctic and Izembek.

Probably less on Izembek than the Arctic. The reason we feel that we should get in operation on it is that it is a very valuable concentration ground for waterfowl.

It has large extensive beds of eelgrass and is a gathering place for the Pacific brant. Unless we have somebody watching things, this area will go to pot particularly with the interest there is in oil exploration, and so on, in that general area.

OPPOSITION OF ALASKA STATE FISH AND GAME COMMISSION

Senator BIBLE. If I understand you correctly, it was denied before because of opposition from the Fish and Game Commission of the State of Alaska.

Mr. PARKER. They had expressed concern. It was established from public domain lands.

Senator BIBLE. I am given to understand that the State government at that time opposed the use of this money to start on this particular project. What is the present attitude of either the Governor or the other authorities in Alaska?

Mr. PARKER. At the moment I am unable to say just exactly what their reaction is. As I said earlier, the impression I have is that they had less objection to Izembek than they did have to the Arctic.

Senator BIBLE. You don't know whether they do or do not object to Izembek at the present time?

Mr. PARKER. I can't answer that; no.

Senator BIBLE. If you have any information that is of value to the committee in case this point is brought up, please supply it for the record. Senator Bartlett was quite concerned.

Mr. PARKER. Right. May I make one correction in my statement? I have been advised there are two field camp buildings located on Izembek. I indicated earlier there were none.

FEDERAL EXPENDITURES

Senator BIBLE. The answer is that you have two field camps there. How much money has been expended by the Federal Government on Izembek?

Mr. PARKER. These were surplus buildings that we inherited from the Air Force. We have never spent any money.

Senator BIBLE. No money was spent there, although there are two field camps at the present time.

Mr. PARKER. That is right.

Senator BIBLE. They are Army surplus and you inherited them?

Mr. PARKER. Yes.

(The statement referred to follows:)

ESTABLISHMENT AND INFORMATION

The Izembek Refuge was established by the President in 1960, pursuant to Executive Order 10355, published in Federal Register Document 60-11521, December 8, 1960.

The Alaska Department of Fish and Game has approved the operational program for Izembek as evidenced by a telegram received February 28, 1964, as follows:

"DANIEL H. JANZEN,
"*Director, Bureau of Sport Fisheries and Wildlife,*
"*Washington, D.C.:*

"Have reviewed proposed 1965 budget of $50,000 for Izembek Refuge with Mr. Woolford. The State has no objection to this program.

"WALTER KIRKNESS,
"*Commissioner, Alaska Department of Fish and Game.*"

The Izembek Refuge, though established in 1960, has not yet been staffed or provided with an operation and maintenance fund. Limited custodial work has been carried out by personnel of the Aleutian Islands Refuge. No funds have been provided.

The $50,000 requested in fiscal year 1965 will be spent approximately as follows:

| | |
|---|---|
| Road and trail maintenance | $7,000 |
| Boundary posting, 152 miles | 5,000 |
| Maintenance of two buildings | 1,000 |
| Management of 177,000 acres of grasslands, 138,000 acres of marsh and water, and 100,000 acres of tundra | 14,000 |
| Enforcement on 415,000 acres | 12,000 |
| Maintenance of two camping areas | 1,000 |
| Wildlife survey and censuses | 10,000 |
| Total | 50,000 |

Senator BIBLE. Are there further questions?

Thank you, gentlemen, we will stand in recess until 10 o'clock tomorrow morning for the Forest Service presentation.

(Whereupon, at 3:50 p.m., Thursday, February 27, 1964, the subcommittee recessed, to reconvene at 10 a.m., Friday, February 28, 1964.)

# DEPARTMENT OF INTERIOR APPROPRIATIONS FOR 1965

FRIDAY, FEBRUARY 28, 1964

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, D.C.*

The subcommittee met at 10 a.m., pursuant to recess, in room 1223, the New Senate Office Building, Hon. Carl Hayden (chairman) presiding.

Present: Chairman Hayden, Senators Bible, Byrd, Mundt, Young.
Also present: Senator Stennis.

## DEPARTMENT OF AGRICULTURE

### FOREST SERVICE

### STATEMENT OF HON. JOHN STENNIS, A U.S. SENATOR FROM THE STATE OF MISSISSIPPI

FOREST SOIL AND HYDROLOGY LABORATORY, OXFORD, MISS.

Chairman HAYDEN. The committee will be in order. Senator Stennis.

Senator STENNIS. Thank you very much, Mr. Chairman. We have a cotton bill on the floor for debate today, and you know, with one Senator from Mississippi and one from Arizona, when you say cotton, you had better be on the job, so I will only take a few minutes of the subcommittee's time.

I did want to appear here this morning and express an interest in this program and some additional level of research for our forest insect and disease study at the Southern Hardwood Laboratory at Stoneville, Miss.

I have a few questions to be propounded to Dr. Harper. And, if I may, I would like to leave them with your clerk, Mr. Eaton, and he could ask them of Dr. Harper when he comes on.

And the same thing will apply to a laboratory working in research on wood-destroying pests and diseases, which is located at Gulfport, Miss. It is housed there with the Genetics Laboratory, and they urgently need a few extra funds this year. I find that the Armed Forces Pest Control Board is deeply interested in this project, Mr. Chairman. I am going to get some statement from them on the preservation of wood. Also, the Southern Pine Industry Committee has filed a statement with me which I would like to give you, if I may.

And I have, too, a special interest in possible installation of a forestry hydrology laboratory at Oxford, Miss., which I have discussed with the subcommittee before. If I may, I would like to have



29-120—64——58

my statement in the record that I have on that, and I also have some questions for Dr. Harper to answer through Mr. Eaton, please.

And I thank the Chairman very much. If I may come back when you have your other witnesses, I can go into some other points. Thank you kindly.

Chairman HAYDEN. Your statement and that of the Southern Pine Industry Committee will be included in the record.

(The statements referred to follow:)

IN SUPPORT OF THE FOREST SOIL AND HYDROLOGY LABORATORY, OXFORD, MISS.

Mr. Chairman, the Nation is becoming more and more aware of the pressures that modern living is putting on our water supplies. Not only do we have increasing demands from an increasing population for water, but the needs per capita are increasing also. The problem is becoming more pressing in all localities, but its nature differs depending on climate, on soils, and on the impact that use has on the land. Quality of the water supply may be as important as its volume.

In the South we have abundant rainfall as compared with some other parts of the country. An annual fall of 40 to 60 inches in the coastal plain supplies surface and ground water in large quantity. Adequate water supplies have been one of the reasons for industrial expansion in our region. But the very abundance of rainfall sometimes creates serious problems of excessive storm runoff and erosion that continue to damage our soil resource and impair the quality of the water supply. We need the abundance of water, but we also need greater protection of our watersheds to stabilize soils and improve water quality.

Some patterns of agricultural use in the Southern Coastal Plain during the past 100 years have left millions of acres depleted beyond further use for crops or pasture. Unprotected soil has washed away from the fields and silted channels downstream. A 4-million-acre area in northern Mississippi is an example. It is estimated that 100 million tons of soil move downstream from the area each year. Some gullies are eroding at the rate of 300 tons per acre annually. Flooding and deposition of sterile sand occur on 65 percent of bottomland fields each year. The threat to bridges and other improvements with each large storm adds to the problem.

One of the most promising methods of stabilizing eroded lands is through reforestation. We know that forested lands have a critical role to play in the safeguarding of the volume and quality of downstream water supplies. The water problem in a large segment of the coastal plain is thus a forest management problem aimed at learning how to fix the soil in place and improve the amount and quality of the water.

Forests affect water supplies by catching rainfall in the crowns, by mechanically holding soil in place with tree roots, and by providing a mulch of leaves or pine needles to allow moisture to infiltrate rapidly into the soil. The use of water by the trees themselves is of importance, also. Each of these processes needs to be fully understood in the variety of forest and soil combinations that are found in the Southern Coastal Plain, if we are to develop and maintain adequate water supplies. Something is known but much remains to be found out about the effects on runoff, erosion and ground water recharge, of tree species, stand density, timing of successive timber harvests, logging techniques, and other aspects of multiple-use management.

Some work on this problem is underway now in the woods and fields at Oxford, Miss. Scientists are adding to the information available to landowners and the application of results can be observed on a considerable acreage. But a forest hydrology laboratory and related auxiliary facilities are urgently needed at Oxford to provide the necessary space and equipment for the watershed research program underway. A laboratory, greenhouse, and service building would enable scientists to move ahead faster and with greater economy in manpower than is now possible in the crowded, outmoded facilities available.

The existing program would be greatly accelerated if this modest, well-equipped laboratory were available so the scientists could employ the latest time-saving research techniques. Laboratory facilities are needed to learn more about the fundamental principles governing storm runoff, erosion, and sedimentation from forested watersheds. These facilities are needed to determine forest soil properties and their relationship to trees and other vegetation they support. No other forest watershed laboratory of this type is planned for the southern coastal plain.

The laboratory and auxiliary facilities are estimated to cost $450,000. They would immediately increase the effectiveness of the present research. A building site has been provided by local interests, at a nominal cost to the Forest Service, and it is at an excellent location where cooperation with university and other programs will be more effective.

I strongly urge the committee to give this project its closest consideration so that this vital research in the field of forest hydrology can move ahead at a rapid pace.

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SOUTHERN PINE INDUSTRY COMMITTEE,
*Philadelphia, Miss., February 21, 1964.*

Senator JOHN C. STENNIS,
*Senate Office Building,*
*Washington, D.C.*

DEAR SENATOR STENNIS: We understand that the Armed Forces Pest Control Board has expressed an urgent need for stepped-up research in the protection of wood in use from insects and disease. To give wooden docks, buildings, and other structures in use throughout the world by the Armed Forces a longer life would result in substantial savings in the Federal budget. It is such areas of saving, apparently, that the President has in mind in his current drive for economy in Government operations.

Since you will no doubt learn of this need by the military through your committee responsibilities in the U.S. Senate, we wish to add a word regarding the value of such research to the civilian economy. Products competitive to wood have thrived on one important selling point—their so-called permanence. Metals, masonry, and plastics all claim a service life superior to that of wood. No single field of research can be more important to the future stability of the wood industry than that leading to increasing the service life of wood products sufficiently to offset the claims of competitors.

The two research projects currently active in the South on the protection of wood in use are conducted by the U.S. Forest Service at Gulfport, Miss. One is concerned with the biology and control of insects attacking wood and the wood products in storage and in use. One important example is subterranean termites.

The other project is working toward the protection of wood from decay.

Both these projects have contributed notably to the needs of the Armed Forces and the construction and housing agencies in the past. Both, however, have inadequate staffs at present to meet the increasing needs for protecting wood in use. Military and civilian requirements taken together provide, in our opinion, ample justification for strengthening this research as soon as possible.

Any action you may take to help secure necessary appropriations for these projects to the level considered desirable by the military, will be appreciated by this industrywide committee which represents all southern lumber producers on matters of this kind. It will aid the Nation's forest industry and, in turn, boost the economy of Mississippi and the South by promoting fuller use of our tremendous forest resources.

Kind personal regards.

Sincerely yours,

TOM DEWEESE, *SPIC Chairman, for Mississippi.*

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## RESPONSES TO QUESTIONS BY SENATOR STENNIS

### FOREST HYDROLOGY LABORATORY, OXFORD, MISS.

Question. At the appropriations hearings for fiscal year 1964, the need for a Forest Hydrology Laboratory at Oxford, Miss., was discussed. This is a project in which I am very interested, and I would appreciate your outlining the nature of the research program this laboratory would house.

Answer. The research program at Oxford, Miss., is concerned with two broad problems of major importance to the management of forest land watersheds of the upper and lower coastal plain areas of the South. One of the problems is the development of efficient and economical methods of rehabilitating seriously eroded areas through reestablishment of forest stands and supplementary measures to arrest the erosion and heal gullies; and further to develop effective forest management guides to provide for use of rehabilitated areas for timber production, wildlife habitat, and recreation without starting a new cycle of progressive de-

terioration. The other problem is concerned with how best to manage the timber and other surface resources and uses so as to provide for effective recharge of ground water supplies and to promote regulated yields of good quality water.

Studies of these factors of watershed management under controlled conditions which this laboratory, equipped with modern scientific facilities, would house will provide a more rapid and sounder advance toward solution of the problems outlined. Currently, Forest Service research scientists are housed in university space which is crowded and inadequately equipped with makeshift laboratory facilities.

Question. What are the estimated costs for construction of this laboratory?

Answer. The estimated cost for construction of this laboratory is $450,000.

Question. I understand this estimated cost is exclusive of the building site due to the fact that the necessary land has already been contributed to the Forest Service by local interests. Is this correct?

Answer. The cost is exclusive of the building site. The site was made available to the Forest Service by local interests at a nominal cost.

### Insect and Disease Research, Gulfport, Miss.

Question. What is the status of forestry research at Gulfport, Miss., dealing with the problem of insects and diseases that damage or destroy wood used in structures of various kinds?

Answer. The status of research on problems of insects and diseases that damage or destroy wood used in structures is that present efforts deal primarily with improvement of chemical methods of treating soil to protect foundation structures and other parts of buildings from termites. Some research is also underway on protecting wood against the more common rots by brush-on or short-soak, preservative treatments. Other research also deals with problems of protecting tool handles, floors, and other wood from insect borers.

Progress is being made in developing effective and economical treatments to safeguard wood from damage but there are many problems involved on which the program of research at Gulfport, Miss., has not been able as yet to undertake adequately. Logs, pulpwood, lumber in storage, as well as finished structures and items made from wood are subject to attack, by many species of destructive pests, including termites. The Gulfport wood protection laboratory is the only facility of the Forest Service engaged exclusively in research on insects and diseases attacking wood structures and other wood or wood products. This laboratory is located in the heart of the serious problems which, generally speaking, are most acute throughout a humid belt extending across the southern part of the United States.

Question. What is the financing of the current program and what additional funds could be effectively used in fiscal year 1965?

Answer. Approximately $90,000 is provided in the fiscal year 1965 budget estimate for this work. Our plans call for strengthening of this work and an additional $200,000 when the financial situation permits augmenting the budget for this work. These additional funds could be effectively used as soon as they can feasibly be made available. The present laboratory facilities at Gulfport are adequate for the program.

Question. I understand that the Armed Forces Pest Control Board is deeply interested in speeding up this research due to the annual costs of controlling these insects and diseases as well as the costs of repairing structural damage to the various facilities of the Defense Department. Can you provide us with information as to the extent of the costs to the Government?

Answer. The Armed Forces Pest Control Board has estimated that each year the military agencies spend $1,500,000 for control of wood destroying insects. In addition, the Board estimates that much more than this amount is spent each year by the military agencies for repair of structural damage caused by insect or disease pests.

According to the Armed Forces Pest Control Board the military agencies of the United States have under their management buildings and other structures, built wholly or in part of wood, worth approximately $25 to $30 billion today on the basis of probable replacement costs. These structures are distributed widely in geographic areas representing almost every major type of climate and soil. The wooden components of these structures, which represent more than half of their total value, are subject to attack by wood destroying pests. The Armed Forces Pest Control Board meets annually with representatives of the Department of Agriculture for the purpose of reviewing those portions of the Department of

Agriculture research program conducted for the Armed Forces. The Armed Forces depend upon the Forest Service for research on wood damaging and destroying insects and fungi and for recommendations regarding their control. Many of the problems of the military agencies in controlling these wood pests are similar in nature to the problems of civilian agencies, homeowners, and wood industries. The magnitude of costs involved in the civilian economy in dealing with control of wood pests and repair of damage is of course much greater than that of the military agencies. Research of the Forest Service is aimed at effective control measures and reduced costs.

INSECT AND DISEASE STUDIES, STONEVILLE, MISS.

Question. What is the present program at the Southern Hardwood Laboratory at Stoneville, Miss., in insect and disease research?

Answer. The present program is primarily on problems of the many borers that attack hardwood timber trees and on diseases of hardwood trees such as cankers and heartrots. We have approximately $70,000 in the fiscal year 1965 budget for this work, of which $30,000 is for forest insect research and $40,000 for forest disease research. In the insect research, a powerful female attractant has been discovered for use against the carpenter worm moth—one of the serious damaging insects to hardwood timber which degrades its use for lumber. Other insect research deals with insects that attack hybrid cottonwood cuttings in the early year of growth by controlling them through systemic chemicals. Cottonwood trees developed in our silvicultural research are rapid growing and promising for planting purposes. The control measures for the insects attacking these young trees look very promising. In the disease research some progress is being made in determining the causes and in developing silvicultural control measures for cankers and heartrots.

The forest insects and diseases in the southern hardwood region served by the Stoneville Hardwoods Laboratory cause considerable damage throughout the 45 million acres of hardwood forests in the Mississippi River Delta and similar sites of the South. Trunk-boring insects and bark-scarring insects attack living hardwood trees and cause defects in the wood which seriously degrade and lower the value of products cut from them. Outbreaks of hardwood defoliators have caused excessive mortality and reduced growth over some 3 million acres in the past decade. Heartrots, cankers, diebacks, and wilts in the forest disease category have caused an estimated loss of some 500 million cubic feet of wood, largely in sawtimber-size trees.

Question. What additional amount would be needed to bring the level of this research up to a point where adequate attack could be made on the most pressing problems?

Answer. I would estimate about $60,000 additional would strengthen this research and provide a reasonably balanced attack on the most pressing problems. As soon as the budget situation and priorities of problems permit, we plan to strengthen this program to this extent. Ultimately more may be required depending upon progress of the research.

# DEPARTMENT OF AGRICULTURE

## Forest Service

**STATEMENTS OF JOHN A. BAKER, ASSISTANT SECRETARY OF AGRICULTURE; E. P. CLIFF, CHIEF, FOREST SERVICE; C. W. HENDEE, DEPUTY CHIEF, FOREST SERVICE; V. L. HARPER, DEPUTY CHIEF, FOREST SERVICE; A. W. GREELEY, DEPUTY CHIEF, FOREST SERVICE; M. M. NELSON, DEPUTY CHIEF, FOREST SERVICE; G. M. JEMISON, ASSOCIATE DEPUTY CHIEF, FOREST SERVICE; E. W. SCHULTZ, ASSOCIATE DEPUTY CHIEF, FOREST SERVICE; B. H. PAYNE, ASSOCIATE DEPUTY CHIEF, FOREST SERVICE; G. D. FOX, ASSOCIATE DEPUTY CHIEF, FOREST SERVICE; A. R. SPILLERS, ASSOCIATE DEPUTY CHIEF, FOREST SERVICE; H. B. MACK, BUDGET OFFICER, FOREST SERVICE; AND HARRY B. WIRIN, DEPUTY DIRECTOR OF FINANCE, DEPARTMENT OF AGRICULTURE.**

### 1965 Budget Request

Chairman Hayden. The budget for consideration this morning is that of the Forest Service for fiscal year 1965. I will place in the record a "purpose" statement supplied by the Forest Service with its budget estimate. There also will be included a summary of estimated appropriations and receipts for fiscal year 1964. The appropriation request is $17,170,000 greater than the amount appropriated in fiscal year 1964.

(The statements referred to follow:)

### Purpose Statement

The Forest Service is responsible for promoting the conservation and wise use of the country's forest and related watershed lands, which comprise one-third of the total land area of the United States. To meet its responsibility the Forest Service engages in three main lines of work, as follows:

#### MANAGEMENT, PROTECTION, AND DEVELOPMENT OF THE NATIONAL FORESTS AND NATIONAL GRASSLANDS

The 186 million acres of national forests and national grasslands are managed under multiple use and for sustained yield. Under these principles natural resources of outdoor recreation, range, timber, watershed, and wildlife are utilized in a planned combination that will best meet the needs of the Nation without impairing the productivity of the land. These management and utilization principles were recognized in the Multiple Use-Sustained Yield Act of June 12, 1960 (Public Law 86-517, 74 Stat. 215).

In managing the national forests, technical forestry is applied to the growing and harvesting of timber crops. Grazing use is managed to obtain proper range conservation along with utilization of the annual growth of forage. Watersheds are managed to regulate streamflow, prevent floods, and provide water for power, irrigation, navigation, and municipalities. Management includes the handling of 125 million visits of people to the national forests for recreation purposes. Wildlife habitat is managed to provide a suitable land and water environment for both game and nongame wildlife.

Under the multiple-use principles most areas are used for, or serve, more than one purpose or objective. For example, about 50 percent of the area within the national forests serves five different purposes: (1) Timber production, (2) watershed protection, (3) forage production, (4) wildlife production, and (5) recreation. An additional 28 percent serves four purposes in varying combinations. Of the remainder, 21 percent of the total serves three purposes with only 1 percent of the total reserved exclusively for a single purpose; mainly, campgrounds and special-use areas, such as summer homesites, pastures, corrals, etc. The varied interests which frequently conflict and which must be reconciled, and the vast areas covered,

clearly require careful planning and skillful management of the national forest properties.

Gross area within unit boundaries encompasses about 226 million acres in 44 States and Puerto Rico, of which some 186 million acres are under Forest Service administration. Protection from fire and trespass is made difficult by the large area to be protected, the general inaccessability, the many thousands of miles of exterior boundary, the intermingled public and private land, the impossibility of taking preventive action with such a problem as lightning-caused fires, and the rapidly increasing public utilization of these lands and their associated resources.

The protection of the national forests includes the control of forest fires, the control of tree disease and insect epidemics, and the prevention of trespass.

The major development activities of the national forests are reforestation; timber stand improvement; revegetation; construction of roads, recreational facilities, range and other necessary improvements; and land acquisition and exchanges.

The economic importance of the national forests and national grasslands is evident when it is considered that—

(*a*) They produced a cash income in the fiscal year 1963 of over $126 million. The following table summarizes cash receipts, showing actual for fiscal years 1962 and 1963, and estimated for fiscal years 1964 and 1965:

| Class of receipts | 1962 actual | 1963 actual | 1964 estimated | 1965 estimated |
|---|---|---|---|---|
| Timber sales | $106,158,478 | $117,387,497 | $121,000,000 | $123,200,000 |
| Grazing | 3,196,128 | 3,385,978 | 3,500,000 | 3,600,000 |
| Land uses | 3,306,433 | 3,738,160 | 4,000,000 | 4,300,000 |
| National grasslands | 1,512,929 | 1,712,565 | 1,750,000 | 1,800,000 |
| Total receipts | 114,173,968 | 126,224,200 | 130,250,000 | 132,900,000 |
| Above amounts include: Suspense account, Alaska [1] | (633,861) | (820,828) | (900,000) | (900,000) |
| Suspense account, Oregon and California lands [2] | (3,548,809) | (4,341,916) | (4,000,000) | (4,000,000) |

[1] Account established pending settlement of Indian rights on Tongass National Forest, Alaska.
[2] Account established for Oregon and California railroad grant lands, for which receipts are transferred to Department of the Interior for distribution under the acts of Aug. 28, 1937, June 24, 1954, and Aug. 3, 1961 (43 U.S.C. 1181f-g).

Approximately 65 percent of this amount is credited to the general fund in the Federal Treasury (miscellaneous receipts). The remainder is distributed in accordance with special acts of Congress, including 25 percent to the States or counties in which lands are located, and 10 percent made available for construction and maintenance of the Forest Service system of roads and trails. In addition to these cash receipts, there are the even greater economic values which result from the processing of end products derived from this utilization of national forest timber, forage, minerals, etc. There are also the important values of water, recreation, and wildlife which cannot be readily expressed in monetary terms.

(*b*) The area within national forest boundaries is equivalent to some 10 percent of the area of the continental United States Over 40 percent of this land is within areas now experiencing severe economic distress. Proper management, development, and utilization of these lands are important factors in permanent improvement of these local economies. Millions of people who live in and near the national forests are supported in whole or in part through the economic development arising from the forests and their resources.

(*c*) The national forests supplied 10 billion board feet of timber in fiscal years 1963 to the Nation's forest products industries. This is expected to increase to 11 billion board feet in 1964. Dependence of the forest products industries on national forest timber continues to increase as the result of depletion of good quality timber on private lands.

(*d*) About 6 million head of domestic livestock (including calves and lambs) are grazed on the national forests and grasslands.

(*e*) These lands provide protection to municipal water supplies for nearly all western cities and towns and many in the East, to irrigation water used on about 20 million acres of western lands, and to many streams with waterpower developments. They provide flood protection to thousands of acres of rich valley lands and help to prevent more rapid siltation of reservoirs and stream channels.

(*f*) They provide a habitat for a large part of the big game animal population for birds, for millions of small game animals and furbearers, and for fish.

(*g*) They provide opportunities for healthful outdoor recreation, with a minimum of restrictions, for millions of people who yearly visit the national forests.

FORESTRY RESEARCH

The Forest Service conducts research in the entire field of forestry and the management of forest and related ranges. This includes the growth and harvesting of timber, its protection from fire, insects, and diseases, the protection and management of watersheds, and improved methods for development and management of recreation resources. It conducts studies in forest economics, marketing of forest products, and a survey of the present extent and potential growth and use of the Nation's forest resources. It also conducts research to develop new and improved products from wood, to increase efficiency of utilizing forest products, and to advance the efficiency and mechanization of forestry operations. Results of research are made available to owners of private forest and rangelands to public agencies which administer such lands, to forest products industries, and to consumers. The program has a two-fold objective: (1) To backstop the national forest development program by devising more efficient practices for protecting, managing, and utilizing forest resources; and (2) to develop new and improved practices that will lead to sounder uses of forests in other public and private ownerships and more efficient and profitable utilization and marketing of forest products.

The Forest Service also cooperates with the Agricultural Research Service of the Department by reviewing and appraising for technical adequacy forest research projects beneficial to the United States which are conducted abroad. These projects are carried out with foreign currencies under section 104(k) of Public Law 480, as amended, and the dollar expenses of the Forest Service in connection with this work are paid from the appropriation "Forest Protection and Utilization."

COOPERATION WITH STATE AND PRIVATE FOREST LANDOWNERS

The Forest Service cooperates with State agencies and private forest owners to (*a*) better protect the 440 million acres of State and privately owned forests and critical watersheds against fire, insects, and diseases; (*b*) encourage better forest practices, both for resource conservation and profit, on the 358 million acres of private forest land; (*c*) aid in the distribution of planting stock for forests, shelterbelts, and wood lots; (*d*) stimulate development and proper management of State, county, and community forests.

The Forest Service is also responsible for carrying out the provisions of section 401 of the Agricultural Act of 1956 (16 U.S.C. 568c), by providing assistance to the State forester or equivalent State official, through advice, technical assistance, and financial contributions for increased tree planting and reforestation work, in accordance with plans submitted by the State and approved by the Secretary of Agriculture.

Proper administration, protection, and development of these forest resources is essential as they must be so managed as to yield the maximum resource potential. In many rural areas, the forestry resource is the key to the establishment and maintenance of sound local economies. The State and private forestry programs of the Forest Service are a vital part of the Department of Agriculture's overall rural area development program.

Other work related to forestry includes:

INSECT AND DISEASE CONTROL

Activities to suppress and control destructive insects and diseases that threaten timber areas include two types of work carried on jointly by Federal, State, and private agencies: (*a*) Surveys on forest lands to detect and evaluate infestations of forest insects and infections of tree diseases and determination of protective measures to be taken, and (*b*) control operations to suppress or eradicate forest insects and diseases, including white pine blister rust.

FLOOD PREVENTION AND WATERSHED PROTECTION

On national forest lands and on non-Federal forest lands within the watersheds authorized for treatment by the Department of Agriculture under the Flood Control Act of December 22, 1944, the Forest Service plans and installs watershed improvement measures, in the form of minor physical structures, cultural measures, and intensified fire control, to retard runoff and reduce floodwater and sedi-

ment damage. Work on non-Federal land is carried on in cooperation with the Soil Conservation Service and the appropriate State and local agencies.

The Forest Service also cooperates with the Soil Conservation Service, appropriate State agencies, and the local organizations sponsoring small watershed protection and flood prevention projects initiated under the Watershed Protection and Flood Prevention Act of 1954, as amended, in planning and installing forestry and related measures on the watersheds and in interagency studies of proposed water and land resource developments on river basins for the purpose of obtaining integrated resource development programs.

WORK PERFORMED FOR OTHERS

The Forest Service is frequently called upon to perform services for other Federal, State, or private agencies on a reimbursable or advance payment basis. Examples of these activities are—

(*a*) Protection of other Federal and non-Federal forest lands intermingled with the national forests.

(*b*) Disposal of slash resulting from sales of timber and the rehabilitation of such areas.

(*c*) Construction and maintenance of roads, and other improvements.

(*d*) Research investigations in forest, range, and water management and utilization problems.

(*e*) Cooperative survey, mapping, administrative, and reforestation projects, etc.

(*f*) Cooperation with defense and mobilization agencies on forest production and utilization projects, and related work.

RURAL FIRE DEFENSE

The Forest Service, as a part of its regular programs, also directs Federal activities and provides technical guidance and training to States concerned with the prevention and control of fires which might be caused by an enemy attack in rural areas of the United States.

The Forest Service maintains its central office in Washington, with program activities decentralized to 10 regional offices, 129 forest supervisors' offices, 801 district rangers' offices, 10 forest and range experiment stations, the Institute of Tropical Forestry, and the Forest Products Laboratory.

*Summary of estimated appropriations and receipts, 1964 and 1965*

| Item | 1964 | Budget estimates, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|
| Appropriations: | | | |
| Forest protection and utilization: | | | |
| Forest land management | [1] $146,834,000 | $150,419,000 | +$3,585,000 |
| Forest research | 25,853,000 | 29,944,000 | +4,091,000 |
| State and private forestry cooperation | 15,917,000 | 16,955,000 | +1,038,000 |
| Total, forest protection and utilization | [2] 188,604,000 | 197,318,000 | +8,714,000 |
| Forest roads and trails | [1] 63,200,000 | 72,300,000 | +9,100,000 |
| Acquisition of lands for national forests, special acts | 70,000 | 70,000 | |
| Acquisition of lands for Wasatch National Forest | 250,000 | 150,000 | −100,000 |
| Cooperative range improvements | 700,000 | 700,000 | |
| Assistance to States for tree planting | [1] 1,000,000 | 1,000,000 | |
| Expenses, brush disposal (permanent) | 9,000,000 | 9,200,000 | +200,000 |
| Roads and trails for States (permanent) | 12,000,882 | 12,400,000 | +399,118 |
| Forest fire prevention (permanent) | [1] 45,000 | 25,000 | −20,000 |
| Restoration of forest lands and improvements (permanent) | [1] 100,000 | 100,000 | |
| Payment to Minnesota (permanent) | 130,986 | 133,000 | +2,014 |
| Payments to counties, national grasslands (permanent) | 437,500 | 450,000 | +12,500 |
| Payments to school funds, Arizona and New Mexico (permanent) | 100,413 | 110,000 | +9,587 |
| Payments to States, national forests fund (permanent) | 29,993,959 | 31,100,000 | +1,106,041 |
| Total | 305,632,740 | 325,056,000 | +19,423,260 |
| Deduct permanent appropriations (shown in detail above) | 51,808,740 | 53,518,000 | 1,709,260 |
| Total (excluding permanent appropriations) | 253,824,000 | 271,538,000 | 17,714,000 |
| Receipts: Forest resource utilization | 130,250,000 | 132,900,000 | +2,650,000 |

[1] In addition, prior year balances are available.

[2] Exclusive of $123,000 transferred to General Services Administration and $421,000 transferred to the Office of the Inspector General, Department of Agriculture.

CHAIRMAN HAYDEN. If you have a statement on the overall program of the Forest Service, the committee will be glad to hear it at this time.

Mr. BAKER. Mr. Chairman, I have a brief statement, yes, sir. I will read it, if I may, sir.

Chairman HAYDEN. You may insert it in the record or read it.

STATEMENT OF MR. JOHN A. BAKER, ASSISTANT SECRETARY OF AGRICULTURE

Mr. BAKER. Thank you, Mr. Chairman.

We are pleased to have this opportunity to review with you the programs of work planned for the Forest Service for fiscal year 1965. During the past 3 years excellent progress has been made in keeping pace with our forest conservation needs. The financing you have provided through regular appropriations, and the program benefits derived from the Accelerated Public Works program, have been effectively used. Your continued support of our forest conservation effort is greatly appreciated.

This has been a very difficult budget to develop because of the need to coordinate the urgency for accelerating forestry conservation activities with the administration's direction to hold the Federal budget to the minimum and for reduction of Federal employment.

One of the President's primary concerns is the seriousness of the poverty situation that currently exists in many sections of our country. We in the Department of Agriculture share this concern since much of this poverty is in rural communities.

FORESTED LAND AREA

Over one-third of the total land area of the United States is forested. These lands have a great natural resource potential if they are adequately protected and properly managed. They can produce the timber, forest recreation, water, wildlife, and livestock forage that will be needed to support our expanding population requirements. These resources can provide for the industrial development, forest land uses, and jobs that are so necessary for an improved and stable economy. However, these benefits won't just happen.

FOREST CONSERVATION PROGRAMS

Positive action must be taken to assure that forest conservation programs for both publicly and privately owned lands are aggressive, timely, and adequate. These resources can be the key to economic stability in many of these critical rural areas, particularly those that have the greatest incidents of poverty, Mr. Chairman.

The 1965 budget request provides for only modest increases in the highest priority items. However, it is a strong budget as it assures continued progress in all major program responsibilities. The increases for reforestation, recreation, and road construction represent what we feel are the highest priority needs for management of the national forests.

Provision has been made for some intensification of fire protection for State and privately owned lands to reduce fire losses. Since much of the privately owned forest land will not be adequately managed and utilized without additional technical forestry assistance,

the programs for providing assistance to small forest landowners and the forest products industry are being expanded.

### Forest Products Laboratory, Madison, Wis.

One of the most significant items in this budget is the construction of the addition to the Forest Products Laboratory at Madison, Wis. This is a large item, but it is the highest priority research facility need we now have. This is of major significance to the timber industry throughout the Nation. It is particularly important to those areas where the lower quality timber resources are not now being fully used. Finding uses for such material will promote the establishment of permanent timber-based industries that will provide stable employment and markets for both present and future forest production.

### Control Research and Harvesting

Modest increases have been included for forestry research to find safer methods for control of forest pests, diseases, and animal damage so as to eliminate the hazards associated with chemical controls that may be injurious to humans or wildlife. Some increases are also requested for work related to the inventory, management, and proper harvesting methods for our timber resources.

Substantial increases could be justified for almost all of our forest conservation programs but, in view of the tight budget situation for 1965, we have limited proposed increases to these highest priority items, and have concentrated on those activites that can have the most immediate and lasting effect for improving the economic situation in the forested portions of the rural areas.

Once again I would like to express my appreciation for this opportunity to review our 1965 program of work for the Forest Service.

It is an honor to appear before your committee, Mr. Chairman, the distinguished Chairman not only of this subcommittee but the full committee and a gentleman of longstanding importance.

I would like to ask Mr. Cliff to add to this statement anything he would care to say in introducing our budget to you.

Chairman Hayden. Thank you for your statement. We will now hear from Mr. Cliff, Chief of Forest Service. Do you have a statement to submit?

### General Statement of Mr. E. P. Cliff, Chief, Forest Service

Mr. Cliff. Thank you, Mr. Chairman. I would like to make a few brief remarks before we get into the questions. It is always a pleasure to appear before this committee. We have enjoyed this association for a long time and look forward to meeting with you.

Assistant Secretary Baker has summarized some of the major considerations included in our 1965 budget request, so I will confine my opening remarks to a few examples of recent accomplishments.

### Accomplishments

Fiscal year 1963 was a year of real progress. Our timber harvest set a record. The 10 billion board feet cut in the national forests exceeded the previous high of 1960 by 600 million board feet. In 1964 we expect to further increase this cut to 11 billion board feet.

We have planted and seeded over 220,000 acres in the national forests to restore their timber productivity.

This is also a new high except for 1 year during the CCC program when we planted about 2,000 acres more han we did last year. Timber stand improvement work was accomplished on almost 600,000 acres.

### Recreation Use Increase

Recreation use continues to increase rapidly. It is expected to reach nearly 140 million visits in calendar year 1964. That is about 3½ times what it was in 1954.

Chairman Hayden. We will soon get to a place where there is standing room only.

Mr. Cliff. We still have room in the national forests, but people are coming in in increasing numbers.

We made good progress in providing additional campground, picnic, and other facilities needed to accommodate this recreation use. But overuse of existing facilities is still about 60 percent of this capacity during peak periods.

### Additional Campground Units

During fiscal years 1963 and 1964 we will have constructed over 16,400 additional campground units that will accommodate over 80,000 forest visitors at one time.

Chairman Hayden. By campground, you mean a place where visitors can stop and also where they can find water and some sanitary provisions?

Mr. Cliff. Yes. These 16,400 campground units I am talking about would consist of a table, and a fireplace, water, and sanitary facilities sufficient to accommodate one family.

### Fire Suppression

The calendar year 1963 fire season started with severe fire hazard conditions throughout the Southern and Eastern States. Again in the fall, we had severe drought conditions. Fire suppression costs were high. The western fire season was delayed in the spring and generally normal for the balance of the year. Fire occurrence on all forest lands, that is State, public and private, increased 61 percent and burned area increased over 200 percent over the 5-year average. This is on all forest land.

On the national forests, our fire occurrence was slightly less than the 5-year averages as contrasted to the great increase on all forest land. And the burned acreages were 75 percent below the 5-year average. While our total burned area was less than 134,000 acres, we are greatly concerned over the fact that we had 6,000 man-caused fires, almost double what we had in 1957. Under the right combination of conditions, any one of these fires could have resulted in major resource and financial losses. This problem of curtailing or cutting down man-caused fires is one of the more serious problems that we are facing.

INCREASED HAZARDS WITH INCREASED USE

Chairman HAYDEN. Does that indicate that people are simply careless and do not pay attention to the worth of the forests?

Mr. CLIFF. I do not think they are any more careless, Mr. Chairman, but we are just getting more people. We have over 3½ times more people using the forest than we had 10 years ago, and we are making greater use of the timber and all other forest resources. So there are increased hazards with this increased use. We are continuing our intensive fire-prevention activities and we think it is making a good impact, but we still have a major job of getting at the root of these man-caused fires. A fire that is prevented is the least costly fire to fight.

INSECTS AND DISEASE

Last year's supplemental insect and disease appropriations permitted us to make considerable progress in arresting insect infestations. However, the mountain pine beetle continued to cause heavy losses in the Rocky Mountain and Intermountain States, so it was necessary to accelerate control work in these areas. We still have many critical situations throughout the Nation. We have a serious one in the Black Hills that needs very intensive action.

We have serious defoliator attacks continuing in a number of places. These serious insect and disease losses will continue until we are able to reduce insect populations below epidemic proportions.

One of the things that Mr. Baker mentioned that we are trying to do is to put added emphasis on trying to find better methods of control, and safer methods of control so we do not have to rely so heavily on chemicals. So we are stepping up our research in this direction.

ACCELERATED PUBLIC WORKS PROGRAM

In fiscal year 1964 we received an additional $28 million of accelerated public works financing. We are very proud of our achievements in both 1963 and 1964 in meeting the objectives of providing immediate employment and of contributing to permanent improvement of the local economies of the communities involved. At the peak of the program we provided employment for over 9,000 people who would otherwise have been out of work, many of them on relief rolls.

Our long-range planning really paid off because we were ready to move into these emergency employment programs rapidly and to put the people to work on useful projects. This was not made work, it was useful, needed work and people were proud to contribute to the kind of projects we had. Since we had a big backlog of road construction, campground development, timber stand improvement, and similar work developed and ready to go, we were able to move rapidly. I think we put more people to work more quickly than all of the other Federal agencies combined for the first year of the program.

By virtue of the combination of our regular financing and the Accelerated Public Works program, our timetable of accomplishments for the development program for the national forests will be approximately 93 percent on schedule through fiscal year 1964.

Now we are not making uniform progress on all activities, but on the average it will be about 93 percent of our planned goals through the fiscal year 1964.

STATE AND PRIVATE FORESTRY

We feel that all of the items in this budget are important and are well justified. I would just like to mention two, not that I want to deemphasize the others, but one is the State and private forestry increases. Our State and private forestry programs have been lagging behind the other programs of the Forest Service.

This year we have included in this budget an increase of $1 million for State and private forestry programs. This is a small amount compared with the total needs, and we sincerely hope that the committee can find a way to approve the increases for State and private forestry.

FOREST PRODUCTS LABORATORY

The other one Secretary Baker mentioned, we feel is very important not only to the national forests, but to the State and private landowners all over the country, and that is the Forest Products Laboratory. We have a great deal of timber in this country for which there is no ready market. This timber can contribute a great deal to the development of rural economies. We need to accelerate our research work in the Forest Products Laboratory. This is the first year that we have had an increase for construction of the Laboratory in the budget. Your committee added it to the budget once before, but it was not carried through the total appropriations process. This year we have it in the budget and we are very hopeful that it can be held and approved.

As Secretary Baker stated, "We welcome this opportunity to review our budget and our work with you and we are happy to discuss with you any individual questions or problems that you might wish to bring up." Thank you very much.

RESEARCH PROGRAM AT BOTTINEAU, N. DAK.

Senator YOUNG. Mr. Chairman, I wonder if I might ask a couple of questions.

Chairman HAYDEN. Certainly.

Senator YOUNG. With reference to the Bottineau Laboratory, do you have many staff members at that laboratory now?

Mr. CLIFF. Only at the level we have been staffing it. Dr. Harper may want to add to that.

Dr. HARPER. That is correct. We carry the same amount in 1965 estimate that we had in 1964, $69,000.

Senator YOUNG. Did you ask the Bureau of the Budget for more money or is this your total request?

Dr. HARPER. In our original agency request, yes, we planned to step up the research at Bottineau as well as at some other locations, but, as you know, this is a very tight budget and we were not able to accommodate increases except for a few high-priority items in the final estimates for 1965.

1964 BUDGET REQUEST

Senator YOUNG. How much did you request?

Dr. HARPER. The exact figures were not identified by locations in our initial estimates. What we need there and what we have planned when financially feasible, is $150,000, Senator Young. This would make full use of the new facility that we have just completed at Bottineau. This would enable us to tackle many of the shelter belt problems which we have not been able to get to in the present program.

GREENHOUSES

Senator YOUNG. Do you have any money in the budget for greenhouses at Bottineau?

Dr. HARPER. No, sir; we do not

Senator YOUNG. You need those, too; do you not?

Dr. HARPER. Yes. Our estimates on greenhouses and a storage building amount to $70,000. I think, however, Senator Young, that we possibly could get by for the present without them. When we get an increase in the program we could provide some facilities such as a greenhouse out of our research program funds.

Senator YOUNG. You think you may be doing this?

Dr. HARPER. I say I think we could. When we are able to increase the research program there, I think we could provide some facilities out of our research funds, such as a small greenhouse and some storage buildings.

Senator YOUNG. Do you plan to do that this year?

Dr. HARPER. No. This will have to wait until we have an increase in our research funds at Bottineau. This will have to wait until the budget situation permits it.

Senator YOUNG. Thank you, Mr. Chairman.

STATUS OF DEVELOPMENT PROGRAM FOR THE NATIONAL FORESTS

Chairman HAYDEN. In your explanatory notes there is a table which I shall place in the record, setting forth the development program for the national forests for fiscal years 1963 and 1964.

(The table referred to follows:)

*Financing of development program for the national forests, cumulative fiscal years 1963–64 (including Pay Act costs, Public Law 87–793)*

[In thousands of dollars]

| | 1963–64 planned level | 1963–64 available | | | Difference | Percent financed |
|---|---|---|---|---|---|---|
| | | Appropriation | Public works | Total | | |
| National forest protection and management: | | | | | | |
| Timber resource management: | | | | | | |
| Sales administration and management | 52,492 | 52,513 | ---------- | 52,513 | 21 | 100.0 |
| Reforestation and stand improvement | 44,572 | 31,091 | 7,000 | 38,091 | −6,481 | 85.5 |
| Subtotal, timber resource management | 97,064 | 83,604 | 7,000 | 90,604 | −6,460 | 93.3 |
| Recreation-public use | 74,637 | 51,389 | 10,500 | 61,889 | −12,748 | 82.9 |
| Wildlife habitat management | 8,438 | 7,067 | 1,700 | 8,767 | 329 | 103.9 |
| Range resource management: | | | | | | |
| Management | 10,136 | 9,864 | ---------- | 9,864 | −272 | 97.3 |
| Revegetation | 5,615 | 5,400 | 100 | 5,500 | −115 | 98.0 |
| Improvements | 7,305 | 6,470 | 2,300 | 8,770 | 1,465 | 120.0 |
| Subtotal, range resource management | 23,056 | 21,734 | 2,400 | 24,134 | 1,078 | 104.7 |
| Soil and water management | 14,583 | 10,919 | 1,300 | 12,219 | −2,364 | 83.7 |
| Mineral claims, leases, and special uses | 8,064 | 7,369 | ---------- | 7,369 | −695 | 91.4 |
| Land classification, adjustments, and surveys | 9,473 | 7,557 | ---------- | 7,557 | −1,916 | 80.0 |
| Forest fire protection | 49,129 | 44,816 | 1,600 | 46,416 | −2,713 | 94.5 |
| Structural improvements for fire and general purposes | 27,705 | 22,804 | 13,000 | 35,804 | 8,099 | 129.2 |
| Total, national forest protection and management | 312,149 | 257,259 | 37,500 | 294,759 | −17,390 | 94.4 |
| Insect and disease control: | | | | | | |
| White pine blister rust control | 7,463 | 7,057 | ---------- | 7,057 | −406 | 94.6 |
| Other pest control | 13,510 | 17,266 | 300 | 17,566 | 4,056 | 130.0 |
| Total, insect and disease control [1] | 20,973 | 24,323 | 300 | 24,623 | 3,650 | 117.4 |
| Purchase of lands (Weeks and special acts) | 7,445 | 3,812 | ---------- | 3,812 | −3,633 | 51.2 |
| Forest roads and trails (including all related appropriations) | 174,868 | 137,400 | 18,800 | 156,200 | −18,668 | 89.3 |
| Total | 515,435 | 422,794 | 56,600 | 479,394 | −36,041 | 93.0 |

[1] Includes $4,500,000 for lands not administered by the Forest Service.

Chairman HAYDEN. Does this budget provide the funds required in the implementing of this program which was sent to Congress by President Kennedy? If not, how much does it fall short of that goal?

Mr. CLIFF. Mr. Chairman, as I stated, through fiscal year 1964 we will be in approximately 93 percent of our planned program, on the average. The budget that is before you will not provide for continuation of the program at this same rate.

Financing under this budget will be at the level of approximately 67 percent of that planned for 1965. You see, in the program for the national forests we proposed acceleration for about 5 years. This budget proposal would slow down that rate of acceleration.

Chairman HAYDEN. In other words, level off instead of advancing.

Mr. CLIFF. Yes; this budget, if it is approved, will result in our accumulative accomplishments through fiscal year 1965 being at about 83 percent of our total planned program.

### Timber Resources Review

Chairman Hayden. I understand that during the past year or two the Forest Service has been making a comprehensive study to update the "Timber Resources Review" that was published some years ago. What is the status of this project? Are you on schedule?

Mr. Cliff. Mr. Chairman, I am glad to comment on that. We have completed our reanalysis of the "Timber Resources Review." It is now in a review draft which we plan on having reviewed in the Department and possibly by some outside people, and we expect to have the final review and the publication of this in final form about the middle of the year.

I might say that the general outlook for meeting our timber needs through the year 2000 is somewhat more optimistic than the "Timber Resources Review" indicated, but it will still require a big effort to keep up the progress that has been made and to keep the trend in forestry in this country going upward in order to meet these goals. There is a big problem, although it does not look quite so formidable as the TRR indicated.

### Forest Protection and Utilization

Chairman Hayden. I will insert in the record the justifications for your budget estimate of $197,318,000 for forest production and utilization. This is an increase of $8,170,000 over the amount appropriated for you in fiscal year 1964.

(The statements referred to follow:)

(*a*) *Forest protection and utilization*

| | Forest land management | Forest research | State and private forestry cooperation | Tota |
|---|---|---|---|---|
| Appropriation Act, 1964 | [1] $147,312,000 | $25,893,000 | $15,943,000 | [1] $189,148,000 |
| Transferred to operating expenses, Public Buildings Service, General Services, General Services Administration for space rental | −123,000 | | | −123,000 |
| Activities transferred in the 1965 estimates to: | | | | |
| Salaries and expenses, Office of the Inspector General | −346,000 | −39,000 | −25,000 | −410,000 |
| Salaries and expenses, Office of Management Services | −9,000 | −1,000 | −1,000 | −11,000 |
| Base for 1965 | [1] 146,834,000 | 25,853,000 | 15,917,000 | [1] 188,604,000 |
| Budget estimate, 1965 | [1] 150,419,000 | 29,944,000 | 16,955,000 | [1] 197,318,000 |
| Increase | +3,585,000 | +4,091,000 | +1,038,000 | [1] +8,714,00 |

[1] In addition, $700,000 is available by transfer from "Cooperative Range Improvements."

*Summary of increases and decreases, 1965*

| | |
|---|---|
| Forest land management: | |
| For reforestation and stand improvement to accelerate the rate of reforestation and timber stand improvement measures | +$1,200,000 |
| For recreation-public use to provide for operation and maintenance of recreation areas and facilities | +800,000 |
| For maintenance of structural improvements for fire and general purposes | +123,000 |
| For additional payments to employee's compensation fund | +95,000 |
| Reduction in acquisition of lands (Weeks Act) due to special land purchase included in fiscal year 1964 | −462,000 |
| Forest research: | |
| Reduction in timber management research due to savings resulting from consolidation of program activities | −47,000 |
| For watershed management research to strengthen the technical basis for management of watersheds and adjacent water-producing mountain lands | +36,000 |
| For forest insect research to intensify search for pest control methods that will reduce hazards associated with chemical control | +200,000 |
| For forest disease research to strengthen research on serious diseases damaging young natural stands, plantations, and natural hardwood forests | +41,000 |
| For forest engineering research to develop new systems for harvesting and transporting timber | +75,000 |
| For forest survey to accelerate and strengthen survey activities | +150,000 |
| For forest research construction to construct facilities at Madison, Wis., for research on forest products utilization | +3,165,000 |
| State and private forestry cooperation: | |
| For cooperation in forest fire control to strengthen fire protection | +250,000 |
| For cooperation in forest management and processing to provide technical assistance to additional small private forest owners and sawmill operators | +500,000 |
| For general forestry assistance to provide specialized technical forestry assistance | +250,000 |
| For additional pay act costs in 1965 on the 2d step of the pay increases required by Public Law 87–793 | +2,338,000 |
| Total increase, forest protection and utilization | +8,714,000 |

*Project statement*

| Project | 1963 | 1964 (estimated) | Increases or decreases | | 1965 (estimated) |
|---|---|---|---|---|---|
| | | | Increased pay costs (Public Law 87-793) | Other | |
| Forest land management: | | | | | |
| National forest protection and management: | | | | | |
| (1) Timber resource management: | | | | | |
| (a) Sales administration and management | $25,005,530 | $28,788,000 | +$526,000 | | $29,314,000 |
| (b) Reforestation and stand improvement | 14,522,276 | 15,645,000 | +164,000 | +$1,200,000 | 17,009,000 |
| (2) Recreation-public use | 26,765,824 | 24,951,000 | +259,000 | +800,000 | 26,010,000 |
| (3) Wildlife habitat management | 2,895,573 | 3,571,000 | +53,000 | | 3,624,000 |
| (4) Range resource management: | | | | | |
| (a) Management | 4,959,113 | 5,008,000 | +100,000 | | 5,108,000 |
| (b) Revegetation | 2,470,952 | 2,714,000 | +23,000 | | 2,737,000 |
| (c) Improvements | 2,999,247 | 3,252,000 | +28,000 | | 3,280,000 |
| (5) Soil and water management | 5,277,374 | 5,275,000 | +70,000 | | 5,345,000 |
| (6) Mineral claims, leases, and special uses | 3,270,546 | 3,731,000 | +63,000 | | 3,794,000 |
| (7) Land classification, adjustments, and surveys | 4,018,110 | 3,829,000 | +70,000 | | 3,899,000 |
| (8) Forest fire protection | 20,204,964 | 22,738,000 | +273,000 | | 23,011,000 |
| (9) Structural improvements for fire and general purposes (construction and maintenance) | 13,527,398 | 10,814,000 | +84,000 | +123,000 | 11,021,000 |
| (10) Payments to employees' compensation fund | 28,728 | 520,000 | | +95,000 | 615,000 |
| Subtotal | 125,945,635 | 130,836,000 | +1,713,000 | +2,218,000 | 134,767,000 |
| Deduct amount advanced from "Cooperative Range Improvements" | −700,000 | −700,000 | | | −700,000 |
| Subtotal, national forest protection and management | 125,245,635 | 130,136,000 | +1,713,000 | +2,218,000 | 134,067,000 |
| (11) Fighting forest fires | 18,606,605 | 5,000,000 | | | 5,000,000 |
| (12) Insect and disease control: | | | | | |
| (a) White pine blister rust control | 3,484,363 | [1] 3,551,000 | +36,000 | | [1] 3,587,000 |
| (b) Other pest control | [2] 9,870,193 | [2] 7,185,000 | +80,000 | | [2] 7,265,000 |
| Subtotal, insect and disease control | 13,354,556 | 10,736,000 | +116,000 | | 10,852,000 |
| (13) Acquisition of lands (Weeks Act) | 499,099 | 962,000 | | −462,000 | 500,000 |
| Subtotal | 157,705,895 | 146,834,000 | +1,829,000 | +1,756,000 | 150,419,000 |
| Deduct amount advanced from "Cooperative Work, Forest Service" for fighting forest fires | 1,400,000 | | | | |
| Total, forest land management | 156,305,895 | 146,834,000 | +1,829,000 | +1,756,000 | 150,419,000 |

See footnotes at end of table, p. 931.

*Project statement*—Continued

| Project | 1963 | 1964 (estimated) | Increases or decreases | | 1965 (estimated) |
|---|---|---|---|---|---|
| | | | Increased pay costs (Public Law 87-793) | Other | |
| Forest research: | | | | | |
| Forest and range management research: | | | | | |
| (14) Timber management research | $5,958,375 | $6,552,000 | +$114,000 | −$47,000 | $6,619,000 |
| (15) Watershed management research | 2,286,957 | 2,631,000 | +46,000 | +36,000 | 2,713,000 |
| (16) Range management research | 1,018,948 | 1,140,000 | +21,000 | | 1,161,000 |
| (17) Wildlife habitat research | 527,267 | 584,000 | +11,000 | | 595,000 |
| (18) Forest recreation research | 394,639 | 413,000 | +8,000 | | 421,000 |
| Subtotal, Forest and range management research | 10,186,186 | 11,320,000 | +200,000 | −11,000 | 11,509,000 |
| Forest protection research: | | | | | |
| (19) Forest fire research | 1,376,063 | 1,819,000 | +29,000 | | 1,848,000 |
| (20) Forest insect research | 1,897,402 | 2,002,000 | +39,000 | +200,000 | 2,241,000 |
| (21) Forest disease research | 1,599,810 | 1,693,000 | +33,000 | +41,000 | 1,767,000 |
| Subtotal, forest protection research | 4,873,275 | 5,514,000 | +101,000 | +241,000 | 5,856,000 |
| Forest products and engineering research: | | | | | |
| (22) Forest products utilization research | 4,602,232 | 4,961,000 | +108,000 | | 5,069,000 |
| (23) Forest engineering research | 219,437 | 221,000 | +4,000 | +75,000 | 300,000 |
| Subtotal, forest products and engineering research | 4,821,669 | 5,182,000 | +112,000 | +75,000 | 5,369,000 |
| Forest resource economics research: | | | | | |
| (24) Forest survey | 1,588,543 | 1,673,000 | +31,000 | +150,000 | 1,854,000 |
| (25) Forest products marketing research | 661,920 | 999,000 | +17,000 | | 1,016,000 |
| (26) Forest economics research | 478,839 | 530,000 | +10,000 | | 540,000 |
| Subtotal, forest resource economics research | 2,729,302 | 3,202,000 | +58,000 | +150,000 | 3,410,000 |
| (27) Forest research construction | 2,752,900 | 635,000 | | +3,165,000 | 3,800,000 |
| Total, forest research | 25,363,332 | 25,853,000 | +471,000 | +3,620,000 | 29,944,000 |
| State and private forestry cooperation: | | | | | |
| (28) Cooperation in forest fire control | 12,464,892 | 12,494,000 | +14,000 | +250,000 | 12,758,000 |
| (29) Cooperation in forest tree planting | 299,136 | 300,000 | | | 300,000 |
| (30) Cooperation in forest management and processing | 2,501,915 | 2,513,000 | +5,000 | +500,000 | 3,018,000 |

| | | | | | |
|---|---|---|---|---|---|
| (31) General forestry assistance | 560,907 | 610,000 | +19,000 | +250,000 | 879,000 |
| Total, State and private forestry cooperation | 15,826,850 | 15,917,000 | +38,000 | +1,000,000 | 16,955,000 |
| Total, forest protection and utilization | [4] 197,496,077 | 188,604,000 | +2,338,000 | +6,376,000 | 197,318,000 |
| Unobligated balance lapsing | 520,145 | | | | |
| (32) Total increased pay costs on second step of pay increase (PL 87-793) | (.....) | (2,139,000) | (+2,338,000) | (+49,000) | (4,526,000) |
| Total available or estimate | 198,016,222 | 188,604,000 | +2,338,000 | +6,376,000 | 197,318,000 |
| Transferred to Operating expenses, Public Buildings Service, General Services Administration | +275,478 | +123,000 | | | |
| Transferred to Operating expenses, general administration, Agriculture | +7,300 | | | | |
| Comparative transfer to other accounts | +376,000 | +421,000 | | | |
| Total appropriation or estimate | 198,675,000 | 189,148,000 | | | |

[1] Includes allocation to the Department of the Interior: 1964, $344,520; 1965, $344,000.
[2] Includes $3,000,000 provided by supplemental appropriation, Public Law 88-25, approved May 17, 1963; $1,284,336 of this amount was obligated in fiscal year 1963; $1,715,664 will be obligated in fiscal year 1964.
[3] Includes allocation to the Department of the Interior: 1964, $1,102,171; 1965, $900,000.
[4] Represents obligations as follows:

| | |
|---|---|
| Obligated fiscal year 1963 (excluding $376,000 comparative transfer) | $196,156,413 |
| Estimated obligations, fiscal year 1964, per [2] above | 1,715,664 |
| Applied costs for fiscal year 1963 are | 198,721,479 |

The difference of $849,402 reflects, primarily, contractual services and equipment received in 1963 over contracts made and orders placed in that year.

JUSTIFICATIONS OF 1965 ESTIMATES

The net increase of $8,714,000 in the forest protection and utilization appropriation consists of:

| | |
|---|---|
| 1. Increased pay costs, Public Law 87-793 | $2,338,000 |
| 2. Program increases and decreases | 6,376,000 |
| Total net increase | 8,714,000 |

(*1*) *Timber resource management*

(*a*) *Sales administration and management, $29,314,000.*—No program increase is proposed for fiscal year 1965.

An estimated 11.2 billion board feet of national forest timber will be cut, an increase of 200 million board feet over the estimated 11 billion being cut during fiscal year 1964. Approximately 12 billion board feet are to be offered for sale.

In many sections of the Nation the timber-based industries are becoming increasingly dependent on national forest timber as a major source of supply. This is evidenced by the fact that although total annual domestic production of industrial roundwood has remained fairly constant over the past 10 years, the annual cut of industrial roundwood products from the national forests has nearly doubled, and continues to increase as other sources of timber supply dwindle. The increasing dependency of timber-based industries on national forest sawtimber is even more striking. In 1952 the sawtimber cut from these lands amounted to an estimated 12 percent of the total domestic production; by 1962 this figure had risen to nearly 28 percent of the total production even though national forest land capable of producing continuous crops of industrial wood comprises less than 18 percent of the total estimated commercial forest land in the Nation.

The Forest Service goal is to meet these increasing needs by offering timber for sale at full allowable cut rates insofar as practicable. The orderly cutting of national forest timber in accordance with sound forest management principles and in harmony with other forest resources and uses not only improves conditions for future timber growth, but keeps mills going, provides employment, and contributes substantially to the general economy. The program proposed for 1965 is:

| | |
|---|---|
| Sale preparation 12 billion board feet at $0.65 per thousand | $7,800,000 |
| Sale administration 11.2 billion board feet at $1.66 per thousand | 18,600,000 |
| Advance sale preparation 3 billion board feet at $0.30 per thousand | 900,000 |
| Timber inventories and management plans | 1,488,000 |
| Subtotal | 28,788,000 |
| Pay act costs | 526,000 |
| Total | 29,314,000 |

(*b*) *Reforestation and stand improvement, $17,009,000.*—An increase of $1,200,000 in reforestation and stand improvement would be used to accelerate the rate of reforestation by 40,000 acres and timber stand improvement measures by 10,000 acres. These increases would provide for program accomplishments of less than 36 percent of the planned acreage objectives established for 1965 under the development program for the national forests. Even with the additional accomplishments made possible with accelerated public works funds in 1963 and 1964 and the proposed 1965 increase, less than 10 percent of the 10-year needs will have been met during these 3 years.

If the national forests are to make their full contribution to the country's projected annual requirements for industrial wood by the year 2000, reforestation of nonstocked and poorly stocked areas and cultural improvement of young overdense or suppressed timber stands must proceed at a much faster pace than has been possible thus far. As of fiscal year 1963 there were approximately 4.4 million acres of commercial forest land on the national forests in need of reforestation, of which an estimated 3.8 million acres should be planted by 1972. There were also an estimated 10 million acres of existing young timber stand urgently in need of thinning, release and weeding, and other cultural measures to improve their productive condition. The level of commercial timber harvesting on the national forests and the development and maintenance of a thrifty growing forest are directly dependent on the timely execution of the reforestation and stand improvement program.

| | |
|---|---|
| Summary of total program proposed for fiscal year 1965: | |
| Reforest 160,000 acres of nonproductive commercial forest land, including cost of trees and tree seed production | $10,700,000 |
| Develop and improve nurseries at 10 locations and 130 tree seed orchards and seed production areas [1] | 1,245,000 |
| Release and weed, thin, or otherwise improve conditions for future timber growth on 245,000 acres of young timber stands | 4,900,000 |
| Subtotal | 16,845,000 |
| Increased pay costs | 164,000 |
| Total | 17,009,000 |

[1] Nursery development costs include $72,000 for the purchase of 80 acres of land to complete the development of the Humboldt Nursery in California.

(2) *Recreation-public use, $26,010,000*

An increase of $800,000 for recreation-public use would be used to provide for adequate operation, sanitation, cleanup, and maintenance of recreation areas and facilities; develop new sites to alleviate some of the overcrowding and to properly meet expanding use; and to provide necessary visitor information services.

Recreation use of the national forests continues to rise sharply. During the period 1950 through 1962, annual visits have increased from 27 million to 113 million (over 400 percent). Recreation use is expected to increase to 125 million visits in calendar year 1963, 140 million visits in 1964, and near 200 million visits by 1972. As of June 30, 1962, overuse of national forest campground and picnic facilities amounted to 70 percent of their capacity. During fiscal years 1963 and 1964, approximately 16,450 additional family camp and picnic units are being constructed with regular and accelerated public works funds. However, due to the rapid increase in recreation use, overuse at camp and picnic sites will still be 58 percent based on the 1963 installed capacity of 28.8 million and expected use of 45.5 million visitor-days use. This overuse contributes to rapid deterioration of facilities, permanent damage to land and resources, and detracts from the enjoyment of the visitors. To meet this use impact, 283,000 new units, plus development of 4,000 other types of recreation facilities, must be completed during the period 1963–72.

This increasing use of the forests, particularly during the past 5 years, has given emphasis to the need for providing visitor information services ranging from simple nature trails and scenic overlooks to visitor centers, housing exhibits, and other interpretive facilities to better explain natural resource management. As the national forest visitor load continues to grow and the expanding population makes even greater demands upon the vital timber, range, wildlife, and water resources of these public lands it becomes important for visitors to more clearly understand the benefits of forest lands and the need to protect and use them wisely.

At the 1964 recreation appropriation level it would take almost 30 years to provide the facilities that will be needed by 1972. Failure to provide these facilities on a timely basis would result in critical overuse demands on inadequate facilities, greatly increased cost for operation and maintenance, major sanitation and safety problems, and would jeopardize other forest resources by exposure to fire hazards and improper utilization.

The proposed 1965 recreation budget would provide for the following:

*Operation and maintenance.*—Adequate sanitation, cleanup, and maintenance would be provided for all recreation areas to protect public health and safety, and to permit full enjoyment of these forest areas. The problems of sanitation, care, and impact on recreation resulting from an estimated 140 million visits in calendar year 1964 cannot be delayed or postponed. This work must be done daily in many places. The load and impact is there and so is the obligation to provide safe and satisfactory conditions for public enjoyment of the national forests. The $800,000 increase included in this budget request is required to meet this need.

*Rehabilitation of facilities.*—As of July 1, 1964, there will remain to be rehabilitated approximately 600 campground and picnic sites and other sites such as organization camps, winter sports, swimming, and boating. Work planned for 1965 includes rehabilitation and betterment of 6,000 campground family units and 119 other recreation sites.

*Construction of new recreation facilities.*—The development of additional recreational facilities would be accelerated to accommodate the rapidly increasing public

recreation impacts. The proposed financing would provide for the construction of 5,550 family camp and picnic units which will accommodate 30,000 persons at one time, and 100 swimming, boating, and other sites.

*Recreation management plans.*—To provide for the continually increasing national forest use, forest managers must operate under sound recreation management plans. All of the 154 national forest recreation management plans are expected to be completed by July 1, 1964. The proposed 1965 financing would provide for the preparation of 495 recreation area plans involving important classification of lands valuable for recreation. These plans are needed in advance of development work.

*Visitor information service.*—In addition to the operation and maintenance of present facilities, construction is planned as follows:

(*a*) Primary visitor centers at—

Madison River Earthquake Area—Gallatin National Forest, Mont. ($95,000).

Cradle of American Forestry—Pisgah National Forest, N.C. ($80,000).

(*b*) Secondary units. Small information centers and orientation buildings will be built at eight locations. (Examples are: Elizabeth Furnace, George Washington National Forest, and Carp Lake, Grand Mesa-Uncompahgre National Forest.)

(*c*) Guided and self-guided facilities. Trails (nature, historical, geological), auto tours, and boat tours in and near recreation complexes at 20 locations.

(*d*) Other facilities and services. Additional vistas, overlooks, wayside exhibits, campfire circles, exhibits at headquarters, and interpretive signs will be installed at 25 areas.

(*3*) *Wildlife habitat management, $3,624,000*

No program increase is proposed for fiscal year 1965.

Approximately one-twelfth of the land area of the United States lies within the national forests and national grasslands. The land and its waters provide the home for wildlife and fish, both game and nongame. Within this 186 million acres are some 80,000 miles of fishing streams and 2 million acres of lakes and reservoirs. Approximately one-third of this Nation's big game animals live within these lands. Wildlife has always been an attraction to the public—both those who hunt and those who do not. It is an important part of outdoor recreation enjoyment. Visits to the national forests for hunting and fishing have trebled in the last 10 years. During calendar year 1964, it is estimated that there will be over 30 million forest visits for these purposes, and such use will increase to 50 million by 1972.

The wildlife habitat must be protected, managed, and developed so that it can support, on a multiple-use basis, the wildlife populations and fish resources that will be necessary to meet this need. Productive habitat is the key to wildlife production. The national forests can provide the essential habitat through technically directed coordination with other resource activities and by direct habitat improvement projects. Proper management and use of the wildlife resource can be of great economic benefit to forest area communities.

Under the proposed 1965 budget it it estimated that the following wildlife work would be accomplished:

| | | |
|---|---|---|
| Improvement of wildlife range | acres | 50, 000 |
| Water developments | units | 320 |
| Fish stream improvement | miles | 260 |
| Lake improvement | acres | 2, 000 |

(*4*) *Range resource management*

(*a*) *Management, $5,108,000.*—No program increase is proposed for fiscal year 1965.

Grazing of livestock is one of the principal uses of the national forests and national grasslands The grazing resources must be managed to provide the optimum use by livestock in coordination with other resource values and uses. To achieve this objective in addition to recurrent workload associated with administration of about 11,400 separate allotments involving over 22,000 permits, special attention must be given to the following specific needs:

1. Range allotment analysis must be completed on 4,500 range allotments as of fiscal year 1965 to provide the factual information necessary for intensive and effective management and for final determination of rehabilitation and improvement needs.

2. Development of intensive use management systems on 9,800 allotments now receiving only extensive management. This job cannot be accomplished until the needed facilities are constructed.

The 1965 budget request provides for completion of 620 units of range allotment analysis work. This accomplishment would raise the level of completion to about 65 percent of the initial analysis task. Periodic reanalysis and annual maintenance of management plans for a portion of the 11,400 allotments would be a part of the 1965 work.

(*b*) *Range revegetation, $2,737,000.*—No program increase is proposed for fiscal year 1965.

Part of the national forest rangelands remains in poor condition. Many of these depleted lands lie within important watersheds and, in their present condition, are a menace to urban and rural areas as they are a continuing source of flood damage and erosion loss. These lands can be restored to good forage production and watershed condition by proper rehabilitation treatment. Improving the range watershed lands will help to alleviate the need for reductions in numbers of permitted livestock or length of grazing seasons on critical allotments. Methods used to improve forage cover and stabilize soils include seeding of grasses and other forage plants, application of herbicides, grubbing with power equipment, controlled burning, water spreading, and controlling rodents and noxious farm weeds.

During the period 1963–72, 4 million acres of rangeland must receive revegetation and rehabilitation treatment to restore its productivity. Failure to meet this need could have serious impact on the livestock industry dependent on these rangelands. Soil losses and damage to other forest resources will continue until these lands are properly rehabilitated. The fiscal year 1965 appropriation will provide for accomplishment of 186,000 acres.

(*c*) *Range improvements, $3,280,000.*—No program increase is proposed for fiscal year 1965.

Range improvements are necessary to control movement of livestock in rotational management systems, provide stock water in arid areas and make possible full and sustained use of the forage resource.

An additional 16,000 miles of fence and 8,100 water developments should be built to assure full and effective use of the range resource. Failure to meet this need will result in inability to properly manage the use of these ranges. The financing proposed for fiscal year 1965 would provide for the maintenance of existing facilities and for construction of approximately 1,000 miles of range fencing, 1,300 stock watering developments and some 120 cattleguards. It is estimated that cooperating stockmen will contribute $270,000 for cooperative maintenance and $700,000 for new construction.

(*5*) *Soil and water management, $5,345,000*

No program increase is proposed for fiscal year 1965.

The water yield from the national forests and national grasslands is a basic requirement of a sustained or improved economy, particularly in the rural areas of the Nation. In the 11 Western States these watersheds yield about 53 percent of the total runoff. This water is a direct source of supply for more than 1,000 communities and for a major segment of the agricultural, recreational, and industrial water needs. National forest lands therefore must be managed to assure a continuing and improved supply of high-quality water. Soil and hydrologic surveys must be prepared to guide proper land use and water yield improvement. Since protection of the soil and water resource is basic to all other forest uses, it is essential that this work keep pace with increased programs such as road construction, mining, timber harvest, and recreational development. During the period 1963–72 standard soil surveys are urgently needed on 29 million acres. Water yield improvement by means of vegetation management and snowpack management is being extended at the rate of 3 to 5 watersheds per year. This is about 1 percent of the national forest watersheds in which such treatment holds promise of helping alleviate water supply deficiencies of dependent rural areas. Watershed rehabilitation is needed on 1.3 million acres and in 22,000 miles of gullies or abandoned roads—570 pollution and flood prevention projects should be installed. Current progress is less than 25 percent of the annual need. There is an increasing use of national forest lands by other agencies for reservoirs, highways, mining, and other land uses which can have a major impact on watershed and other multiple-use values. Each such use requires careful study and evaluation to insure a design compatible with multiple-use objectives and field supervision during construction to insure proper installation.

Major fiscal year 1965 program goals are—

(*a*) Complete standard soil surveys on 1.2 million acres and reconnaissance surveys on 3 million acres.

(*b*) Make comprehensive watershed plans for 40 representative watersheds which are the primary source of domestic, irrigation, or industrial water supply or are known flood source areas.

(*c*) Provide technical watershed protection specifications and soil management service on 800 projects located on fragile watershed lands to prevent water pollution and to prevent accelerated erosion.

(*d*) Prepare multiple-use surveys and provide for field coordination during construction on 250 water resource and other major construction projects of other agencies which have a major impact on national forest multiple-use programs. These surveys are required to meet the criteria and standards for formulation of water and related resource programs established by the President and published in Senate Document 97, 87th Congress.

(*e*) Improve hydrologic functioning, water quality, soil stability, and reduce flood potential on selected watersheds which are in a seriously deteriorated condition and treat an estimated 100,000 acres damaged by forest fires to reduce damage repair costs and to protect these lands from deterioration until site productivity is restored.

(*6*) *Mineral claims, leases, and special uses, $3,794,000*

No program increase is proposed for fiscal year 1965.

This work involves mineral leasing, special uses (other than recreation), and mineral reservations and outstanding rights administration. Occupancy and use of national forest land for disposal of mineral or other purposes is necessary and desirable as a part of sound multiple-use management. However, strict and adequate control of occupancy and mineral operations is necessary to protect forest resources from damage and to assure the highest use of the land consistent with good management of all other resources.

With close to 28,000 active mineral permits and leases in force, involving several million acres of land, and rentals and royalties in excess of $13 million per year, the work must be kept current to protect the public interest. Annually about 5,000 mineral applications must be comprehensively reviewed and processed. The volume of mineral leases has steadily increased from 5,200 in 1951 to an estimated 30,000 in 1965. In addition, some 140 mineral reservations are being actively operated, covering 80,000 acres. These are privately owned minerals under lands owned by the United States. The public values in the surface must be fully protected.

New mining methods and new and more efficient machinery have caused a big step-up in mining operations, both in the leasing field and in the mining of privately-owned minerals under national forest lands. Adequate control must be maintained over mineral reservations, outstanding rights, and leases to protect the other valuable forest resources and to provide for prompt productivity restoration of surface mined lands. Failure to maintain such control has and will continue to result in serious resource losses if adequate management and control are not provided. This situation is particularly critical to the economy of many of the areas now experiencing severe economic depression where deep coal mining and iron mining have steadily declined with a resulting sharp decrease in employment. In these areas the other forest resources, such as timber and recreation, must be fully and effectively restored, developed, and utilized. Increased mining law effort is required to handle the extra work created by the Church-Johnson Act (Public Law 87–851) for the relief of mining claimants.

Another important part of this activity is the detection and elimination of unauthorized use of mining claims which constitutes trespass and interferes with the orderly administration of the national forests. Approximately 10,000 such cases now exist that should be cleared within the next 8 years. Failure to aggressively pursue such cases further complicates the problem, as it encourages others to disregard the mining laws.

Other uses of national forest lands have likewise increased sharply. At present there are approximately 40,000 permits and easements involving almost 5 million acres of land and 60,000 miles of rights-of-way. Failure to properly administer these special land uses could result in serious resource damage and direct monetary loss to the Government.

Television and other public entertainment broadcast stations require high mountain peaks for greatest coverage. Sites most frequently occur in national forests. Competition for sites is heavy from other radio-electronic uses for

commercial but nonpublic service such as logging and pipeline monitoring and from the emergency and safety field.

Acceleration of highway construction has added to Forest Service workload as many such roads cross lands under Forest Service jurisdiction. Impact studies and close cooperation with State highway departments and the Bureau of Public Roads is required to provide adequate protection of national forest scenic, recreation, soil, water, wildlife habitat, and timber resources.

(7) *Land classification, adjustments and surveys, $3,899,000*

No program increase is proposed for fiscal year 1965.

This program provides for the study and classification of lands with respect to their suitability for inclusion or exclusion from the national forests, national grasslands, and other land areas administered by the Forest Service; adjustments of land ownership in these areas; the establishment of property lines; the maintenance of accurate ownership and status records for all lands administered by the Forest Service and the reproduction of essential administrative maps. These functions are basic to the Forest Service land management program. Ownership patterns are a first consideration in planning and installing improvements and land treatment measures and in carrying out protection work.

*Land classification.*—A continuing analysis of the exterior boundaries and interior landownership patterns of national forests and national grasslands is conducted to facilitate conservation programs. Studies are conducted to determine and recommend changes in landownership or jurisdiction that would enhance opportunities for public programs to provide outdoor recreation, wildlife habitat, timber products, livestock forage, and protection of water resources. Analyses include consideration of potential purchase areas, land transfers or exchanges. Careful consideration is given to changing patterns in land use, especially on private lands, public need for national forest resource development, opportunities for improving the efficiency of public land administration, and to analyzing the probable effects on local economies.

Representative of such studies is one recently completed involving a gross area of 125,000 acres in southern Illinois. Based on study findings, the National Forest Reservation Commission recently approved establishment of a purchase unit which will connect the two units of the Shawnee National Forest. Similarly, under a contract with the Forest Service, the University of Arkansas completed a study of an area adjacent to the northern border of the Ozark National Forest. The study considered alternatives under present landownership and weighed them against potentials for national forest programs as an assistance to the depressed rural economy. This study and supplemental data will provide the basis for recommendations with regard to national forest programs in the area.

In cooperation with the Bureau of Land Management, Department of the Interior, continuing consideration is being given to opportunities for providing more efficient management of the public lands through specific transfers of jurisdiction. Studies are being completed in Montana, Idaho, Colorado, and several other Western States. Federal lands no longer needed for military or other program purposes, or lands involved in flood control or reclamation projects frequently are located close to national forests. Analyses are made of the status and long-term administration of these lands for meeting public needs most effectively and efficiently, and programs for land transfers or interchanges are recommended. By Public Law 88–99, land adjoining the Pineview Reservoir of the Weber Basin reclamation project was included in the Cache National Forest to facilitate resource management and public recreation use. In cooperation with the Bureau of Outdoor Recreation and other agencies involved with public recreation, field analyses have been made and information assembled on land use, development and jurisdiction aspects of four proposed national recreation areas involving national forest lands in California, Utah, West Virginia, and Pennsylvania.

In fiscal year 1963 boundary action was initiated to exclude a considerable area of private lands from the Los Padres National Forest in California and from the Carson National Forest in New Mexico. Some 24,000 acres were added to the Wasatch National Forest in Utah. About 137,000 acres and 64,000 acres were added respectively, to the Superior National Forest in Minnesota and to the Clark National Forest in Missouri. These latter areas comprise those portions of purchase units which were determined to warrant retention in national forest status; national forest holdings in the remainder of the purchase units concerned will be disposed of by exchange.

A transfer to TVA of a site in North Carolina needed for industrial purposes was accomplished, as were transfers to the National Park Service for parkway or

national monument uses in North Carolina and South Dakota. Studies in connection with proposed extension of the Blue Ridge Parkway across national forest land in North Carolina and Georgia are underway. Some 12,000 acres of former land utilization project lands in South Dakota were transferred to the Department of Army in connection with the Oahe Reservoir project. Analyses were undertaken of public domain lands near or adjacent to national forest boundaries in some of the Western States. These analyses will be continued pursuant to objectives of interdepartmental transfers to promote more effective and economical public land management.

Joint studies are continuing relevant to establishment of national recreation areas which include national forest lands at certain major reservoir sites in California, West Virginia, and Utah. These involved selection or jurisdictional boundaries, suitability of lands, and related programing for acquisition and development of lands having important recreational values.

*Land exchange and ownership adjustments.*—Congress has authorized exchange of lands to meet the need for adjustments in the pattern of the Government's ownership in national forests, national grasslands, and other properties administered by the Forest Service. The need for landownership adjustments is particularly acute in areas experiencing rapid urban expansion and population growth such as the California and southwestern regions. Through exchange, the Government can consolidate and otherwise adjust its holdings for more effective and economical management. Also, exchange provides a means of eliminating from Government ownership lands suited to and needed for private, community or industrial purposes that benefit the development and economy of rural and urban areas. Substantial savings can be realized in the cost of administering Federal lands through ownership consolidation. The long-range program of land adjustments provides for the acquisition by purchase or exchange of 7.7 million acres of the 40 million acres of non-Federal lands within the national forests and national grasslands. The land exchange goal for the 10-year period 1963–72 is to exchange 1.5 million acres of lands for suitable private lands to consolidate national forest and national grassland ownership for more effective and efficient administration. This would require the examination and appraisal of 350,000 to 400,000 acres of lands each year because this work must be done for lands both given and received by the United States in exchange. The fiscal year 1965 budget provides for examination of approximately 250,000 acres for exchange and the completion of land exchanges involving some 150,000 acres (80,000 acres offered, 70,000 acres selected).

In fiscal year 1963 the Forest Service completed 83 exchange cases in which the United States gave approximately 34,500 acres and received in exchange 40,000 acres. During the year, field examinations were made of 743,000 acres and appraisals and valuation reports were completed for 135,000 acres in connection with proposed cases.

*Land line location.*—An accelerated land line location program was initiated in 1958 to meet the greatly expanding multiple-use impact on lands administered by the Forest Service and to cooperate with adjoining landowners in perpetuating and remonumenting corners and marking and posting property lines. The total land line program involves the monumentation of 1,132,353 property corners and the marking of 281,168 miles of property lines. During the period 1958–62, search was made for 62,925 corners and 26,198 corners were monumented or remonumented. Also, 1,788 miles of property line were marked and posted to full standard and an additional 11,581 miles were marked and posted to less than full standard.

Following is the work proposed for fiscal year 1965:

| | |
|---|---|
| Field search for property corners | 20,000 |
| Corners monumented or remonumented | 8,000 |
| Identify, survey, and post land lines (miles) | 1,000 |
| Maintain land lines (miles) | 1,000 |

Original monumentation is usually old—from 50 to 150 years old. Until recent years land values and demand for multiple use in many areas administered by the Forest Service were low. Consequently, corners were not adequately maintained and many disappeared. Others have become "thread hangers" and must be remonumented soon or be lost, thus requiring expensive cadastral surveys for their reestablishment (about $1,000 per corner). Missing corners on national forest public domain lands must be reset by the Bureau of Land Management, Department of the Interior.

During calendar year 1962 field search was made for 18,832 property corners. It was found that 11,381 could be remonumented, or otherwise maintained,

without expensive cadastral surveys. The remainder, 7,451 or about 40 percent, will require cadastral surveys for reestablishment. Some 7,975 corners were permanently monumented with brass-capped iron and concrete posts; 984 miles of property lines were located, marked, and posted to standard; 1,274 miles were marked and posted to partial standard to perpetuate the location of lines. This is significant accomplishment, but it must be accelerated to meet current needs in protecting Government lands from trespass, to prevent further unnecessary loss of corners (4,000 to 5,000 now being lost each year), and to further the expansion of multiple uses on Government lands without jeopardizing "good neighbor" relationships with adjoining landowners.

*Land status records.*—The objective for ownership and status records is to have available on each management unit accurate and current records of all ownership and the reservations, outstanding rights, and encumbrances that affect administration of the Government's lands. There are some 170 national forest and national grassland management units for which this information and data must be developed and assembled. The program for installing an adequate system was initiated in 1962 with the objective of completing the job by 1968. However, only about 6 percent of the work was completed by the end of fiscal year 1963. Complete and accurate records of landownership and status are an essential working tool of Forest Service land managers. Records of lands in approximately 14,000 townships, or equivalent quadrangles, are being examined and recorded in the revised system. Through fiscal year 1963, 582 townships have been completed. This review is revealing about two serious errors or omissions per township in previous status records. The conversion should be completed as soon as possible. However, at the present rate of financing it would require some 20 years to complete this work. Work proposed for fiscal year 1965 includes the completion of records for the equivalent of 2.5 management units.

*Mapping.*—The estimated mapping program for fiscal year 1965 includes:

| | |
|---|---|
| Contour maps (square miles) | 3,100 |
| Planimetric maps (square miles) | 7,000 |
| Forest series maps | 11 |

During fiscal year 1963, contour maps were completed for 1,208 square miles. Work accomplished on contour mapping of additional area was equivalent to completion of another 1,717 square miles. Planimetric mapping was completed for 4,800 square miles and is from 50 to 90 percent complete for an additional 6,750 square miles. Eight general purpose maps of national forests were produced.

Reliable planimetric maps meeting the requirements for accelerated management activities are now available for about 43 percent of total requirements for administering the national forests and grasslands. Topographic maps are available for approximately 36 percent of the required coverage.

(8) *Forest fire protection, $23,011,000*

No program increase is proposed for fiscal year 1965.

Uncontrolled fire destroys or seriously damages all forest resources. During the past 5 years estimated resource losses have averaged more than $20 million annually in areas protected by the Forest Service. In addition to this critical resources loss, millions of dollars have been expended for forest firefighting. During the past 5 years, firefighting costs have averaged more than $27 million annually. Adequate fire protection can be accomplished only by elimination of fire hazards, reducing the number of man-caused fires, and by prompt and efficient detection and suppression of fires that occur. As the use of national forest resources increases, there is a corresponding increase in the risk from man-caused fire. Fire protection must meet this impact with more fire prevention, expanded programs of hazard reduction and fuel type conversion, and strengthening of fire control forces in terms of location, adequate manpower, and more effective fire control equipment.

The fire that is prevented results in no resource loss or suppression cost. When prevention fails or fires result from lightning, rapid and adequate initial attack can control such fires at a minimum of cost and resource loss. The long-range fire objective is to hold fire losses below the level which will seriously interfere with intensive multiple-use management of the national forests and national grasslands. It is estimated that for every additional $1 spent for fire protection during the period 1956–63 resulted in a fire damage saving of $5.

The proposed 1965 budget would provide for the following estimated protection measures:

| | |
|---|---|
| Fire prevention | $3,300,000 |
| Fire detection | 3,200,000 |
| Fire attack forces | 13,000,000 |
| Air operations | 2,100,000 |
| Fuel modification | 300,000 |
| Equipment development | 600,000 |
| Studies, surveys, plans, and special training | 511,000 |

*(9) Structural improvements for fire and general purposes, $11,021,000*

An increase of $123,000 would be used for maintenance of dwellings, barracks, service and storage buildings, communication facilities, and other fire and general-purpose improvements.

Many ranger headquarters and field projects are located in remote areas or small communities where adequate housing is not available. Unless adequate housing is provided, it would not be possible to headquarter needed personnel at these work locations. Program costs would be increased excessively and the job of managing the lands and serving the public would suffer severely. There is also a great need for additional fire control structures such as aerial bases, service buildings, and offices in outlying locations. Adequate communications facilities are mandatory for national forest protection and administration. Obsolete telephone systems are being converted to radio networks. Inadequate radio systems are being improved to meet communications needs.

Landing fields, helispots, and heliports are essential to the effectiveness of the fire control program and multiple-use management of the national forests to make the best use of aerial operations and air equipment. They greatly facilitate rapid initial attack on forest fires, thereby increasing the chance for early control at small size which would result in a reduction of both suppression costs and resource losses. Construction and reconstruction of airport facilities such as airfields, heliports, and helispots are urgently needed.

Existing facilities must be adequately maintained and additional facilities built to meet forest management and protection needs. During the period 1963–72, additional needs include 2,640 housing units, 2,517 service and special purpose buildings, 455 fire lookout towers, 2,000 radio installations, replacement of 3,000 miles of telephone line, and construction of 62 landing fields.

In addition to providing for the maintenance of existing facilities and GSA leasing costs, it is estimated that the following facilities will be constructed in fiscal year 1965:

| | |
|---|---|
| Dwellings and barracks (60) | $1,000,000 |
| Fire lookouts (30) | 350,000 |
| Service and storage buildings (70) | 1,450,000 |
| Airstrips and helispots (750) | 270,000 |
| Betterment of existing structures, landscaping, and miscellaneous construction | 600,000 |
| Water and sewage systems | 500,000 |
| Site acquisition | 131,000 |
| Communication facilities | 800,000 |
| Major structures: | |
| Arcadia Equipment Development Center, California | 190,000 |
| Redmond Air Base, Oreg | 100,000 |
| Gifford Pinchot Conservation Institute, Pennsylvania (repair and remodel) | 200,000 |
| Planning and design: Regional office and research station headquarters, Philadelphia | [1] 96,000 |

[1] In addition, approximately $60,000 of project research funds will be used to cover the portion of the costs related to the research portion of this building.

*(10) Payments to employees' compensation fund, $615,000*

An increase of $95,000 for Bureau of Employees' Compensation is required to reimburse the employees' compensation fund, Department of Labor, in accordance with Public Law 86–767 (5 U.S.C. 785), which was enacted September 13, 1960, for benefit payments made from that fund to employees of the Forest Service who are injured while in the performance of duty. The 1965 payment will be $614,581. The payment for 1964 was $520,000.

*(11) Fighting forest fires, $5,000,000*

No program increase is proposed for fiscal year 1965.

This program provides for firefighting on the national forests and the buildup of emergency firefighting forces under peak burning conditions. Experience has demonstrated material savings are made by having a strong force ready to discover, attack, and stop fast-spreading fires while they are small. Costs for the regular fire protection organization are financed from the national forest protection appropriation. The temporary buildup in forces when fire conditions are critical and for the suppression of fires are financed from the fighting forest fires activity to the extent that such needs cannot be met from the regular fire protection financing.

*The calendar year 1962 fire season.*—An alltime record low of 85,457 acres (including 63,893 acres of national forest land) burned in 1962. This compares to the previous low of 107,816 acres in 1937, and represents a tremendous drop from 224,394 acres destroyed in 1961. The average fire burned 7.4 acres in 1962 compared to the 5-year average of 21.4 acres. However, the 11,494 fires that occurred represent a 3-percent increase over the 1957–61 5-year average. Man-caused fires exceed the 5-year average of 4,411 fires by nearly 18 percent. There has been an increase in man-caused fires since 1957 when a modern-day low of 3,305 fires was reached.

Nationally, burning conditions during the 1962 season were about normal in severity. Severity was above normal in California, Arizona, New Mexico, Colorado, Nevada, and Utah, much below normal in Alaska, and much above normal on the Atlantic seaboard because of drought in the spring and winter.

Fourteen men lost their lives fighting forest fires in 1962. Six were killed in aircraft accidents. On the ground, five were killed from burns, two by rolling rocks, and one by a falling snag.

*The calendar year 1963 fire season.*—The eastern spring fire season was very severe; 2,578 fires burned 45,236 acres in the three eastern regions through July. This compares to the 5-year average of 1,557 fires that burned 19,562 acres for the same period. Man-caused fires were up materially over 1962 and the 5-year average. The eastern fall fire season was very critical. Drought conditions prevailed over much of the United States east of the Rocky Mountains and were most severe in the Southern, Middle Atlantic, and New England States. Recorded fire danger reached a 30-year high in many areas. Restrictions were imposed on burning, smoking, and camping to reduce fire occurrence. Intensive prevention efforts were made in all areas.

The western fire season was 2 to 3 weeks later than normal due to favorable weather conditions. Western regions, including Alaska, had 8,570 fires in 1963 as compared to the prior 5-year average of 9,779 fires. Burned acreage was 54,301 as compared to the 5-year average of 203,898 acres.

During calendar year 1963 a total of 12,506 fires burned 127,965 acres (including 91,066 acres of national forest lands).

*(12) Insect and disease control, $10,852,000*

No program increase is proposed for fiscal year 1965.

The objective of this program is to reduce damage and loss caused by insects and diseases to levels commensurate with uses and values involved on all forest lands irrespective of ownership. Control work is accomplished in cooperation with other Federal and non-Federal agencies. Authorization is contained in two Federal laws—the Lea Act of 1940 which deals specifically with the white pine blister rust disease, and the Forest Pest Control Act of 1947 which deals with forest insects and all other tree diseases. Both acts contain provisions for Federal cost sharing on non-Federal land.

(*a*) *White pine blister rust, $3,587,000.*—This serious disease of soft pines was accidentally introduced from Europe in the early 1900's. It has since spread to all major white pine forests in the Nation. Widespread damage has been prevented by a continuing program of control. The program of keeping to tolerable levels losses caused by white pine blister rust disease is being continued on all commercially and aesthetically important white-pine-bearing lands in the Nation. In Eastern United States the disease is largely under control on the 8.6 million acres of white-pine-bearing land selected for treatment. Remaining work involves a continuing maintenance program. In Western United States, control still is not established on 73 percent of the 2.8 million acres selected for white pine management. Major control effort in calendar year 1962 was concentrated in the

West, especially north Idaho, where future white pine lumber production is so vital to the economy. Major accomplishments were—

1. Thirteen million western white pine trees on 95,000 acres were treated by applying antibiotic fungicide to the basal stem by hand equipment or to foliage by aircraft.

2. Control by removal of ribes (alternate host of the disease) included:

(*a*) Initial work done on 55,000 acres.

(*b*) Rework to establish control done on 81,000 acres.

(*c*) Surveys done on 1.5 million acres in connection with initial work and rework.

(*d*) Work done to maintain control on 1.6 million acres.

(*e*) 8.6 million ribes plants destroyed.

3. Continued economic studies in the East and in north Idaho to determine more precisely cost-benefit ratios, and a tree-breeding program to develop white pine stock resistant to damage by blister rust.

(*b*) *Other pest control, $7,265,000.*—Forest insects and diseases are constant and continual threats to the Nation's valuable forest resources. Annual losses are currently estimated at nearly $350 million. During the past 5 years, weather and forest conditions have been conducive to serious epidemic conditions which have resulted in widespread timber losses. The seriousness of the situation has been further compounded by lack of sufficient financing to provide for adequate control programs, as shown in the following summary:

[In millions of dollars]

| Fiscal year | Minimum control needs | Funds available | Unfinanced |
|---|---|---|---|
| 1959 | 4.5 | 3.2 | 1.3 |
| 1960 | 5.0 | 3.6 | 1.4 |
| 1961 | 6.1 | 4.1 | 2.0 |
| 1962 | 9.3 | 6.4 | 2.9 |
| 1963 | 12.2 | [1] 10.1 | 2.1 |
| Total | 37.1 | 27.4 | 9.7 |

[1] Includes $3,000,000 supplemental appropriation.

During this period, outbreaks left uncontrolled for lack of financing have multiplied threefold. Lack of timely control has resulted in increased damage and increased control costs. The losses resulting from delay in control of the attacking pest outbreaks far exceed what it would have cost to provide for adequate control in a timely manner.

The tabulation on the following page shows the manner in which these funds were used in fiscal year 1963, and how they will be used in 1964 and 1965.

*Obligations, insect and disease control funds (exclusive of white pine blister rust control) fiscal year 1963 and estimates for fiscal years 1964 and 1965*

| Project | 1963 | 1964 (estimated) [1] | 1965 (estimated) [1] |
|---|---|---|---|
| Forest insects feeding on or under the bark [2] | | | |
| Northern Rocky Mountain States | $38,100 | $50,000 | $40,000 |
| Rocky Mountain States | 587,643 | 1,110,000 | 950,000 |
| Southwestern States | 157,996 | 150,000 | 150,000 |
| Intermountain States | 1,879,604 | 1,421,000 | 980,000 |
| California | 404,790 | 610,000 | 400,000 |
| Pacific Northwest States | 24,100 | 20,000 | 10,000 |
| Eastern States | 10,100 | 10,000 | 10,000 |
| Southern States | 1,309,961 | 1,150,000 | 400,000 |
| Forest insects feeding on cones, seeds, buds, shoots, or foliage [3] | | | |
| Northern Rocky Mountain States | 301,905 | 400,000 | 230,000 |
| Rocky Mountain States | 19,500 | ---------- | 5,000 |
| Southwestern States | 415,621 | 10,000 | 5,000 |
| Intermountain States | 134,490 | 400,000 | 220,000 |
| California | 1,500 | ---------- | ---------- |
| Pacific Northwest States | 144,019 | 60,000 | 20,000 |
| Eastern States | 172,381 | 30,000 | 10,000 |
| Southern States | 31,023 | 25,000 | 10,000 |
| North Central States | 42,829 | 110,000 | 50,000 |
| Alaska | 67,871 | 5,000 | ---------- |
| Forest tree diseases [4] | | | |
| Northern Rocky Mountain States | 14,375 | 15,000 | 36,000 |
| Rocky Mountain States | 15,500 | 13,000 | 72,000 |
| Intermountain States | 4,950 | 10,000 | 36,000 |
| California | 15,000 | 64,000 | 72,000 |
| Pacific Northwest States | 43,200 | 43,000 | 70,000 |
| Eastern States | 74,155 | 110,000 | 40,000 |
| Southern States | 13,569 | 23,000 | 34,000 |
| Alaska | ---------- | 20,000 | ---------- |
| Detection and evaluation | 963,282 | 1,024,000 | 1,695,000 |
| Methods improvement [5] | ---------- | 60,000 | 175,000 |
| Equipment development | 21,200 | 45,000 | 45,000 |
| Forest Pest Control Act administration | 577,916 | 630,676 | 600,000 |
| Department of Interior forest insect and disease projects | 667,949 | 1,281,988 | 900,000 |
| Total available or estimated | [6] 8,154,529 | [7] 8,900,664 | 7,265,000 |

[1] Estimates of project needs are forecast a year or more in advance of anticipated needs and are always subject to fluctuations. Adjustments are made between projects as necessary, depending on discovery of new outbreaks and expanded needs on approved projects.

[2] Includes Black Hills, mountain pine, western pine, southern pine, Engelmann spruce, black turpentine beetles, Ips, flatheaded borers, balsam woolly aphid, and scale insects.

[3] Includes spruce budworm, jackpine budworm, Douglas-fir tussock moth, elm spanworm, sawflies, Saratoga spittlebug, European pine shoot moth, white pine reproduction weevil, seed and cone insects.

[4] Includes oak wilt, dwarf-mistletoe, and *Fomes annosus* root rot.

[5] This item provides for initial implementation of a chemical pesticide screening unit, jointly financed with Forest Pest Control Act and research funds. Work on the unit was started Jan. 2, 1964, and will be further expanded in fiscal year 1965. Its purpose is to screen and field test selective nonpersistent chemicals in search of replacements for persistent chemicals currently used in forest insect control.

[6] Includes $1,284,336 of the fiscal year 1963-64 supplemental appropriation.

[7] Includes $1,715,664 of the fiscal year 1963-64 supplemental appropriation.

## Activities Under Funds Transferred From This Appropriation for Insect and Disease Control

Approximately 182 million acres of forest and woodlands are administered by the Department of the Interior, including 8.3 million acres by the National Park Service, 2 million by the Bureau of Sport Fisheries and Wildlife, 13.1 million acres by the Bureau of Indian Affairs, and 159.8 million acres by the Bureau of Land Management.

*White pine blister rust.*—There are 606,704 acres of control area administered by the Department of the Interior (424,367 acres National Park Service, 82,485 acres Bureau of Land Management, and 99,852 acres Bureau of Indian Affairs). Blister rust has been controlled on 76 percent of these lands; 78 percent on national parks; 88 percent on Indian lands; and 50 percent on control area administered by the Bureau of Land Management. Future control needed includes: (1) maintaining control already established on some 460,000 acres, and (2) completing the establishment of control on the remaining 147,000 acres of white pine lands.

*Insect and other diseases.*—Increased public demand on forest areas has emphasized the importance of maintaining them in a healthy condition. This has intensified the need for additional control work. The maintenance of insect populations

at endemic levels is becoming increasingly difficult because of continued abnormal moisture conditions.

Control of dwarf-mistletoe infections on limber pine continued at Craters of the Moon National Monument and on ponderosa pine on the Mescalero Indian Reservation in New Mexico. Outbreaks of bark beetle in pine at Grand Teton, Lassen Volcanic, Yosemite, Sequoia, and King's Canyon National Parks continued. A new unit at King's Canyon National Park was also treated during 1963. Four Black Hills beetle control projects were carried out in Wyoming and Colorado. Ground surveys have been conducted on two additional units in South Dakota and Wyoming. Very good results have been reported on areas treated. A Black Hills beetle infestation in Wyoming is being treated through accelerated public works funds.

Spruce budworm infestations were aerial sprayed in New Mexico and Montana. A buildup of spruce budworm infestation in other areas of Montana is being considered for aerial spraying during fiscal year 1964. A tussock moth infestation has been reported in Idaho. Ground surveys have been conducted to determine the extent and severity of the outbreak.

Supplemental appropriations received during fiscal year 1963 assisted materially to abate the spread of Black Hills beetles in Colorado and Wyoming and spruce budworm infestations in New Mexico and Montana. Accelerated public works funds used in Oregon for forest development work have assisted in the abatement of bark beetles through elimination of host material.

*(13) Acquisition of lands (Weeks Act), $500,000*

A decrease of $462,000 is proposed for fiscal year 1965.

The fiscal year 1964 appropriation included $462,000 for special land purchase needs on the Chattahoochee National Forest in Georgia and the Ouachita National Forest in Oklahoma and Arkansas. This decrease will reduce the appropriation to the 1963 level which will permit continuation of a limited program of land-ownership consolidation and acquisition of private lands in national forests and purchase units.

The development program for the national forests provides for the purchase of approximately 500,000 acres important for recreation development and use and 950,000 acres for other important resource management purposes during the period 1963–72. The objective of the Weeks Act purchase program is to acquire key tracts of inholdings in national forests and purchase units, primarily in the East, which are essential to meet the public forest resource need, and to facilitate program installation and efficient administration. This purchase program provides an opportunity to reverse undesirable use patterns.

The pattern of ownership in the national forest system is quite irregular. While some areas are well consolidated, the general situation is one of Government lands intermingled with private and other types of ownership. One consequence is that some private inholdings are developed for purposes that are not compatible with the resource management programs operating on the national forests. Some lands which are suitable for tree growing and other forest resource purposes are unmanaged or in need of rehabilitation. Their resource potential will not be developed and used under the present ownership. In their present condition these lands are contributing little to the economy. There is an urgent need to acquire specific key tracts of inholdings needed for the expansion of public recreation areas in the national forests and to provide new areas for development to meet the steadily increasing demand for this type of use. Also, inholdings which are key tracts from the standpoint of effective and economical administration, or where prospects of critically needed rehabilitation are remote, should be acquired as soon as possible. It is estimated that the proposed 1965 budget will permit acquisition of 23,500 acres.

*(14) Timber management research, $6,619,000*

A decrease of $47,000 is proposed for fiscal year 1965.

This change involves a decrease of $83,000 from savings realized as a result of consolidation of research programs by closing out work formerly done at isolated locations, and an increase of $36,000 for acceleration of that part of timber management research concerned with animal pests which damage forest trees. Emphasis would be placed on control of animal damage to seeds and trees, through habitat manipulation and through influencing palatability of nursey stock by physiological means such as with systemics and other methods to substitute for chemical repellants or chemical controls.

Timber management research develops cheaper and more effective methods of establishing, managing, and improving forests for the production of timber and

timber-related products. The core of this research is determining the proper culture for over a hundred different commercial timber species in the United States. This silvicultural research includes seed production, seeding, planting, thinning, pruning, and stand regeneration measures. It involves the control of brush and other competing vegetation, and the protection of the new stand from animals. Other phases of the program deal with soil and site improvement for timber production, and the development of improved strains of trees through selection and breeding of superior types.

Timber management research also provides forest managers with information on the yield of forests in terms of various products such as lumber, plywood, poles, piling, and pulpwood, and the influence of cultural practices on the yield and quality of the stand. The program also includes research on methods of producing timber-related forest crops such as gum naval stores, maple sap, Christmas trees, and other income-producing natural products from forests.

This production-oriented research is backstopped by advanced research on the physiological growth requirements of forest trees, on variation and inheritance in tree characteristics that have economic value, and on new approaches to difficult measurement problems involved in the management of forest properties.

In all of this research the aim is to meet the Nation's need for production of timber and related forest crops. In view of the inroads on forest lands being made by urban expansion, highways, parks, and other developments, these future needs will not be met at reasonable cost unless technological progress in timber management is increased. Better methods must be found to reforest 50 million deforested acres, to keep existing forest lands continuously productive, to reduce the cost of growing the crop, and to increase its value for industrial use.

During fiscal year 1965, increasing emphasis will be given to research which will lower the cost and raise the value of timber and timber-related forest products, and thereby be of special benefit to underdeveloped areas. More effort will be directed toward cheaper ways to perform silvicultural operations. Attention will be given to maintaining a high standard of scientific research on the difficult basic problems which block rapid progress toward greater production efficiency.

*(15) Watershed management research, $2,713,000*

An increase of $36,000 would be used to strengthen the technical basis for management of national forest watersheds and adjacent water-producing mountain lands. The proposed increase would be used primarily for studies of stabilization and control of landslides on logged steep slopes and studies of techniques for preventing siltation and damage to gravelly salmon-spawning beds in the coastal streams of southeast Alaska.

Watershed management investigations are aimed at development of methods and techniques for managing forest and related range watersheds to: (*a*) increase water yields or improve the timing of water yields under a variety of climatic, soil, geologic, vegetative, and topographic conditions by changing the pattern, density or type of forest cover; (*b*) give adequate protection to soil and water resources while forest and related rangelands are being used for timber production, grazing of domestic livestock and big game, wildlife habitat and forest recreation; (*c*) rehabilitate forest and related rangeland watersheds that constitute serious sources of damaging flood runoff and sediments; and (*d*) aid forest soil development and improvement.

Between half and three-fourths of the waterflow of the United States originates in forests, associated rangelands, and alpine regions which form the headwaters of all major river systems. Generally accepted estimates of water demand indicate a doubling by 1980, and the most logical place to look for additional supplies of good quality water is in these headwater regions. However, there is ever increasing demand to use these lands for other products and services and the manner of their management can make the difference between beneficial, well-regulated, sustained streamflow of good quality or erratic and silt-laden flow of destructive character.

The objectives of the watershed management research program in fiscal year 1965 are to develop practical guides for the management of forest land for improving the yield of good quality water; to improve forest and range soils for better watershed control, and to improve and stabilize unsatisfactory watershed conditions. Highest priorities will be given to improving the management of snow in the forest and alpine zones of the western mountains where the snowpack is the main source of water for summer streamflow; to better management of wetland forests in the northern Lake States and the coastal plains of the Southeast where extensive areas are poorly drained and of low forest productivity; to ways

of manipulating forest cover to increase municipal water supplies and at the same time protect the quality of the water; to develop timber harvesting techniques to prevent erosion and landslides on steep mountain slopes; to improve management of high-elevation ranges and chaparral forests to assure watershed stabilization; to further development of watershed protection standards for logging road construction; and to development of methods for rehabilitation of severe gully eroded areas of the Southeast.

*(16) Range management research, $1,161,000*

No program increase is proposed for fiscal year 1965.

Range management research aims to find the best and most practical means to manage, improve, and maintain the productivity of forests and related lands used for grazing domestic livestock. It encompasses a variety of activities including: (*a*) determination of management systems and grazing intensities for the many different range types and conditions and properly coordinated with other uses, (*b*) development of range improvement measures such as conversion of low-value vegetation to desirable forage plants through prescribed burning, (*c*) determination of characteristics, responses, and requirements of range vegetation and classification of range condition and trend through studies of plant ecology, physiology, and taxonomy, and (*d*) determination of the identity and ecological relations of rodents, insects, and disease to range vegetation as a basis for indirect and inexpensive control.

Grazing is the largest single use of land in the United States and as such constitutes a substantial portion of our agricultural economy. About half the total land area of the contiguous 48 States, some 940 million acres, is grazed by domestic livestock, and all of it is important for its wildlife values. These lands furnish forage for about one-half of the beef cattle and three-fourths of the sheep for at least 6 months of the year. A total of 560 million acres is forested or forest-related rangeland. Some 240 million acres of this is in Federal ownership and blankets the headwaters of the major rivers.

Vast areas, particularly in the western mountains, have been damaged by past land use practices to the point where grazing is seriously affecting the quantity and quality of water produced. Moreover, present range forage production is far below the potential, on the average only half or less of potential, and falls far short of meeting the demands for livestock and game grazing. Demands on the forest ranges for all uses are sharply increasing. As a result, difficult problems continuously arise in the conservation and coordination of use of these lands. In the West, these lands pose many problems because of the variable and often droughty climate, highly erodible soils, and vegetation that will not withstand close grazing use. In the South, integration of grazing with timber production poses serious problems, particularly to small woodland owners. Furthermore, use by wildlife on all lands has to be carefully correlated with livestock grazing. Superimposed on top of this, particularly in the West, is the fact that nearly every forest range acre is of importance as watershed, either as a producer of water or as a potential producer of debilitating sediment.

Methods of management must be found to allow the forage to continuously renew itself in keeping with other uses. Also sorely needed are sure-footed but less costly methods of range-watershed rehabilitation and sharper criteria and methods for use by the range administrator and rancher in judging trends in range improvement or deterioration. Range research must be planned and carried out so that its results can be coordinated with and add to the findings of other Forest Service research on wildlife, timber production, watershed management, and recreation. The results are needed to harmonize multiple use management.

It is intended to move ahead on the highest priority studies in 1965. These include: Increased emphasis on ecology and physiology of forest range vegetation as a basis for improved range management; studies of improved management systems and grazing intensities for the high mountain ranges of the intermountain West, the forested ranges of California and the Pacific Northwest, the annual plant ranges of California, and in Idaho the cheatgrass and grass-herb types on steep granitic soils; conversion and management of the woodland and chaparral type in California and Arizona; studies of gophers and other range pests in the Rockies; comparison of pellet seeding with success and costs of other seeding methods in New Mexico and Arizona; rehabilitation of mountainous livestock and elk ranges of the northern Rockies; range site evaluation, management, and type conversion in the Ozarks; integration of cattle grazing, timber production, and wildlife in the South; publication of a westernwide evaluation of range

forbs; studies of range inventory-analysis techniques required in public land administration.

(17) *Wildlife habitat research, $595,000*

No program increase is proposed for fiscal year 1965.

Wildlife habitat research is concerned with the development of management and improvement practices for supporting optimum populations of game and fish in harmony with production of timber, water, and livestock on forest and related rangelands. Management and improvement of wildlife habitat is complex as each kind of animal has specific habitat requirements that must be balanced against requirements for production of water, timber, and forage for livestock. Research involves studies of forage utilization and environmental factors on seedling establishment and survival. Special practices are developed for increasing food and cover for both big and small game by seeding, planting, burning, spraying, and fertilizing. As a basis for successful integration of wildlife, livestock, and timber production, the nature and degree of competition between wildlife and livestock are determined for various types of forest and rangelands, as well as effects of silvicultural and timber harvesting practices on food and cover plants and reciprocal effects of forage production and wildlife grazing on timber reproduction and growth. Research on fish habitat improvement includes studies of regulating shade and water temperatures through manipulation of streamside vegetation, creation of gravel spawning beds, and stabilization of channels.

Forest and related rangelands provide the main habitat for an estimated 10 million big game animals as well as for countless numbers of other species of wildlife. These lands also contain over a hundred thousand miles of fishing streams and more than 2 million acres of lakes. Demands on these resources are continually increasing, and will have to be met in large measure by the public lands. But game, particularly small game, can be an important source of income for private ownerships, including the small farm woodland owner. In the Southeast, for example, it is not unusual to lease quail hunting privileges for $1 per acre per year. A farmer with good bird dogs and good hunting can realize as much as $50 for a party of two men per day. Information on ways and means to manage and increase habitat productivity for upland game is needed by small woodland owners as well as large forest industry landholders and public land administrators. The wildlife habitat research program involves active cooperation with Federal (particularly the Fish and Wildlife Service and State fish and game agencies and educational institutions.

Although habitat conditions on some areas are suitable for supporting high wildlife and fish populations, the capacity of most forest and related rangelands can be greatly increased. Some of the low-producing areas are the result of damage from logging, fire, or overuse by livestock or big game, whereas others are due to the natural development of vegetation that is unproductive for wildlife. In some areas deterioration of the vegetation cover and accelerated soil erosion have resulted in unfavorable water temperatures, excessive stream siltation, unstable channels, and exposed banks. Consequently, many streams flowing through these lands are below their potential for fish production. In some western mountain streams dense shade from riparian vegetation maintains water temperatures too cold for trout.

In the West, emphasis is placed on studies concerned with rehabilitation of big game winter ranges; integration of wildlife and timber production, competition and resolution of conflicts between big game and livestock, and habitat management to improve game distribution and allow efficient utilization of available forage and cover, and manipulating livestock range improvement practices such as sagebrush and juniper control to provide for food and cover plant needs of big and small game. In the South, and Southeast, studies include the integration of deer and small game with timber and livestock production. In the Northeast and the Lake States major emphasis is on studies to improve habitat and reduce wildlife damage to northern hardwood species through modification of silvicultural practices. In the Central States studies are concerned mainly with small upland game habitat management and revegetation of forest openings with suitable food and cover plants. In the Applachian States research will include management and habitat improvement for turkey, grouse, and deer. In the Northern Lake States, research will be undertaken on upland game habitat in the northern hardwoods and related swamp types. In the Missouri Ozarks, research will be focused on wildlife habitat evaluation, improvement and management of upland game, and integration of wildlife and timber production. On national forests and other public lands research will emphasize how best to improve habitat and at the same time to integrate wildlife use with use of the land for timber and livestock production.

*(18) Forest recreation research, $421,000*

No program increase is proposed for fiscal year 1965.

Forest recreation, once considered a minor use of the forest, has become a major use and has created many problems that cannot be solved quickly and efficiently without supporting studies that are soundly organized and carried out. In 1940, the national forests received 16 million visits. Last year this number increased to 113 million. Millions more are visiting other public and privately owned forest recreation areas—and the upward trend will continue. This buildup must be fitted into increasing demands for water, timber products, wildlife, forage, and other forest resources. As part of the Department of Agriculture's program to aid farmers, especially in economically depressed rural areas, research hastens identification and evaluation of opportunities to develop income-producing recreation by the small woodland owners.

Forest recreation research is underway at 8 of the 10 forest experiment stations. Current studies are pointed toward (*a*) the management of the recreation site—to determine how campgrounds, picnic areas, and other developed areas receiving heavy use may best be planned and managed to prevent damage to soils and vegetation and be maintained without costly rehabilitation of wornout sites, (*b*) to better understand the essential requirements for recreational habitat and developments of those who use the recreation sites; and (*c*) to identify and explore the economic opportunities for developing income-producing recreation enterprises on privately owned (often farmer owned) woodlands—with particular emphasis on economically depressed rural areas.

Further emphasis is needed to strengthen established projects of highest priority including: (*a*) studies of the demand for, and income opportunities from, fee-operated small woodland recreation enterprises in the Midwest, northern California, northern Great Lakes, and Appalachian regions; (*b*) studies of forest recreation visitors' wants and needs, their attitudes in integrating recreation use with other forest uses and of ways to properly integrate these uses; (*c*) related studies of wilderness area visitors and use and essential management practices to preserve wilderness conditions, and (*d*) studies of forest recreation site soils and vegetation aimed at improving methods of selecting new sites for development, restoration of wornout sites, and management of sites to prevent damage from heavy use.

*(19) Forest fire research, $1,848,000*

No program increase is proposed for fiscal year 1965.

A major element in conserving and managing the natural resources of forest, brush, and grasslands is to protect them from wild fire. In 1962 the cost of this effort nationally rose to $140 million for 115,345 fires that burned 4,078,894 acres. Damages are estimated at $100 to $300 million. In the last 10 years, both numbers of fires and area burned have been reduced significantly, but the damage done each year has declined only slightly and suppression costs have risen sharply. The rapid increase in population and use of forest resources has greatly increased the size and complexity of the fire protection problem. Each year these resources become more vital to the public need so more adequate means of fire protection must be developed.

Research on forest fires is directed toward reducing fire losses, improving efficiency of fire prevention and control measures, and toward better techniques for using fire beneficially in forest and range management. Human attitude and behavior studies are laying the groundwork for improved fire prevention methods. Studies of thunderstorms and ways to reduce their fire-starting lightning discharges are continuing. How to predict fire behavior more reliably for better and safer firefighting is being developed through intensive study of environmental factors that control the way fires burn. New chemicals and other additives to water that improve its firefighting efficiency are being developed and tested. Also under study are fire effects and how to achieve best results from fire use for hazard reduction—including slash disposal, modification or control of vegetation, seed bed preparation, and other purposes.

The frequency of wild fires in the Southern States must be drastically reduced if the forest products industry is to continue to serve as a primary industrial base. Since 1956 the Southern State conservation agencies have expended much effort toward stronger law enforcement and faster attack on fires, but the number of fires, the area burned, and the losses suffered have increased. In Alaska the State forester is faced with taking over management of 100 million acres of forest land to be protected and managed by the State. To convert a skeleton system of protection developed by the Department of the Interior to a State system of protection of managed forests for the future is a bold and difficult undertaking.

Conventional measures will not suffice. State officials and those charged with protecting hundreds of millions of acres of Federal lands need greatly advanced technology and improved guidelines for the careful planning necessary to the development of an extensive but practical system.

The forest fire research program is attacking problems of reducing the numbers of fires that start, in finding out how to organize every step of preparedness action most efficiently, and how to combat fires rapidly and successfully—especially those of conflagration potential. In fiscal year 1965 emphasis will be given to research aimed at the more troublesome high priority problems. An example of this is the lightning prevention project in the northern Rockies where results so far suggest lightning may be reduced 38 percent and therefore numbers of fires may be cut.

Firefighters still cannot determine unerringly which of several small fires starting about the same time is going to develop into a major conflagration because of lack of fire behavior knowledge. Fuel-weather-topography studies will attempt to categorize the extremely dangerous combinations of conditions. Studies of thermal energy relations produced by fires, winds, and mountain slopes will be directed toward a better understanding of mass fire behavior. The relation of man, who starts 90 percent of our fires, to the whole fire control problem will be examined with the hope that new ways may be found to successfully break careless, thoughtless, or deliberate actions that lead to serious resource damage, loss of life, and heavy fire suppression costs.

In both the East and West, various fire retardants developed by research have been pressed into service in aerial attack by Federal and State agencies. The potential of aerial attack to limit aggressive fires to small size in otherwise inaccessible areas has proved increasingly valid, and the method is being extended rapidly. However, aerial attack is potentially a costly and dangerous method unless skillfully planned and applied. To provide the most effective retardant for the purpose, to adapt it to both aerial and ground applications, and to supply adequate guidelines for skillful use, requires a more aggressive research program to again bring research findings in advance of practice.

(20) *Forest insect research, $2,241,000*

An increase of $200,000 would be used to intensify the search for pest control methods that will reduce the hazards at present associated with chemical control. All phases of indirect biological approaches will be strengthened including studies of parasites, predators, and pathogens of western and southern barkbeetles and eastern and western defoliators; use of systemic materials or improved chemical formulations to substitute for more hazardous methods; and research on the biology and ecology of insects so that their behavior in relation to silvicultural control may be understood and applied broadly in timber cutting operations.

Research on forest insects is directed toward the prevention or control of destructive insect attack on forests and forest products. Damage by insects enters into all phases of forest management from the seed to the mature forest. The development of effective and economical methods of direct and indirect control is dependent upon thorough knowledge of life histories and habits of forest insects, including the interrelationships between the insects and their environments. Control of forest insects by indirect methods such as the use of natural or introduced predators and diseases of insects, by silvicultural practices designed to prevent the buildup of insect epidemics, and by radiation and chemosterilization techniques, offers promise and is being given major emphasis in the research program. Investigations on direct control methods involve mechanical and chemical methods, including development of safer chemical controls.

Insect research is concerned with the development of safe, effective, and economical methods of preventing or controlling destructive infestations of forest and shade tree insects, and insects affecting browse plants on forest-related ranges. Included among these insects are those that kill trees outright, such as the barkbeetles that cause heavy losses in the West and South. Included also are (*a*) a wide variety of species that feed on the foliage of trees and either kill them outright or reduce their vigor and growth; (*b*) insects that damage or destroy the flowers, seeds, and cones of trees; (*c*) borers that tunnel into the wood and reduce its value through degrade; (*d*) borers that damage or destroy valuable forest products, such as logs, lumber, and pulpwood; and (*e*) various insects that damage or destroy young trees in forest plantations. No part of the country is immune to the ravages of these insects, and no year passes without one or more of them occurring in the form of outbreaks.

During an average year insects kill enough commercial sawtimber to build some 600,000 average-size homes; during periods of outbreak, which occur at

frequent but unpredictable intervals, these losses are much more severe, often bordering on the catastrophic. In addition, insects kill a billion cubic feet of timber below sawtimber size and cause a growth loss of three-quarters of a billion cubic feet each year. Forest insect outbreaks also result in increased fire danger and often set the stage for destructive fires which impair valuable watersheds and wildlife habitats. They jeopardize the success of seed orchards and tree-planting programs; they destroy enormous volumes of forest products, such as logs, lumber, and pulpwood; and they reduce the carrying capacities of forest-related ranges for livestock and big game. Insect-caused losses such as these show no signs of decreasing. Instead they seem to be increasing in severity year by year. Public demands for relief from them are becoming increasingly insistent.

The program for fiscal year 1965 will deal with research on the causes of outbreaks of some of the most destructive forest insect pets as a basis for developing safer, cheaper, and longer lasting methods of preventive control. In this connection special emphasis will be placed on studies of biological control factors, such as insect parasites, predators, and disease pathogens. Increased emphasis will likewise be placed on (*a*) studies of other environmental factors affecting insect populations, such as stand age, condition, and density; (*b*) on determining factors of tree resistance to insects as a basis for developing resistant strains or hybrids for use in planting programs; and (*c*) on exploring possibilities of control through the use of chemosterilants, and gamma irradiation, and attractants and repellents, and for the development through genetic manipulation of more effective strains of insect parasites and predators. Studies in chemical control will be strengthened, with emphasis on determining modes of action of chemicals on and in both insect pests and their host trees, as a basis for developing (*a*) safer and more selective materials and formulations, and (*b*) safer and more effective means of application.

(*21*) *Forest disease research, $1,767,000*

An increase of $41,000 would be used to strengthen research on the serious diseases that are doing extensive damage in young natural stands and plantations, and to valuable natural hardwood forests. In the West the work would emphasize study of soil microbiology with the aim of developing the basis for biological rather than chemical control. Particular attention would be given to exploring new leads for using naturally occurring antagonistic fungi found where root rots are common. Elsewhere the emphasis would be on finding more effective controls for diseases that damage high-value hardwoods by determining the biological stage in the development of fungi that may make them vulnerable to effective control through biological or indirect silvicultural methods.

Research on diseases in forests, forest tree nurseries, and on decays and stains of forest products provides the basic information on the causes of diseases and on practicable and effective methods of combating them. Studies are underway on the identification and life history of the pathogens that cause disease, on the environmental conditions that result in disease epidemics in forests, on direct control by chemical and mechanical methods, on indirect control through silvicultural practices and genetic resistance, and on the improvement of disease survey techniques. In the products field, research is directed to the determination of methods of handling logs and lumber to prevent fungus infection; of the proper use of naturally durable or treated wood in high-hazard locations; and of improved structural design to reduce decay of wood in service.

Forest disease research develops the scientific knowledge on which the control of a wide variety of pathogens rests. Detailed knowledge of tree diseases, their preferred hosts and favored environments, permits several sound approaches to control; development of cultural practices favorable to forest trees but unfavorable to disease; selection and breeding amongst the hosts for genetic resistance; recognition of potentially dangerous foreign pathogens that they may be excluded by effective quarantines thus avoiding another disaster or costly control program such as the chestnut blight or white pine blister rust; and direct preventive or curative treatments. Emphasis is placed on cultural practices that can be incorporated at minimum cost into daily stand management practices, but all approaches are explored where appropriate. For example, research has shown that prevention of fire, reduction of logging wounds, and lowered ages at which timber is harvested will drastically reduce losses from heart rots, the No. 1 disease problem; that ribes eradication will control white pine blister rust, and more recently that proper recognition of climatic influences will drastically reduce the needed control area in the Lake States and in California; biologic and economic studies show where thinning and pruning for dwarf mistletoe control can best be combined with other timber stand improvement measures to improve future

yields; good progress has been made in selecting and breeding for genetic resistance to white pine blister rust, fusiform rust, and chestnut blight; and direct application of chemicals has tremendously reduced losses in forest tree nurseries.

In spite of substantial progress in lessening the impact of diseases on forests, we still lose billions of board feet of timber each year to an array of organisms such as bacteria, fungi, viruses, nematodes, and even flowering plants. In some situations, we are committed to long-continuing high annual disease control expenditures, such as for white pine blister rust, until better methods are found. Intensive forestry, now gaining in the South and West especially, is continuously harassed with disease problems. Soil-borne diseases and related root rots are presently less understood than any other category of forest tree diseases. Yet, the upsurge in reforestation and afforestation, often by planting a single species over extensive areas, is intensifying these and other plantation diseases.

The program for 1965 will emphasize the search for sounder and more effective controls of forest tree diseases based on better knowledge of the organisms and how they are affected by various environments, how antibiotics suppress fungus infections in trees, and how soil organisms interrelate and operate to cause root rots. Work will continue on developing an understanding and control of heartrots, vascular diseases such as oak wilt, rusts, leaf-destroying fungi, and the dwarf-mistletoes of Western conifers. Research on preventing decay to wood used in structures also will be emphasized.

*(22) Forest products utilization research, $5,069,000*

No program increase is proposed for fiscal year 1965.

The aim of the forest products research program centered at the Forest Products Laboratory and with field projects at the various regional forest and range experiment stations is to contribute to the solution of national, regional, and local utilization problems of all types, especially to problems of rural area development that often are related to improved utilization of the timber resource; to reduce unused woods and mill residues to a minimum by finding uses for present residues; to develop new products; and to improve the serviceability and lower the costs of existing products. Its broad aim, in brief, is to develop new utilization outlets for thinnings, unpopular and little-used species of timber, logging and milling residues, and to make the whole timber crop on farms and other forest lands go further and give better service in a wide variety of uses for lumber, paper, chemicals, and other products derived from wood.

The timber-using industry is an important part of our present economy. In 1959 the total value of shipments from timber-based primary manufacturing industries amounted to over $10 billion. About 5 percent of the gross national product originated in timber-based industries. One out of every twenty people employed in the United States worked in these industries. A raw material base for a greatly expanded industry is available in little used species, in low-value timber, and in logging and milling residues. Research in forest products utilization is needed not only to give stability to the present industry but also to develop a technical basis for new industries.

The Federal Government has a strong interest and responsibility in forest products utilization research. The industry in general is a complex of many small companies. Even the largest are small in comparison to those of other basic industries with whom they compete, i.e., aluminum, steel, plastics, and petroleum. One single large petroleum-using company employs more researchers than the entire timber-using industry. There are very few forest products companies who can finance a research program. Those that do are largely interested in product developments which will give them a competitive advantage; they pay little attention to finding uses for the poorer species and sizes of trees often in abundance.

The future of forestry in the United States will be jeopardized unless profitable use can be made of all of the forest crop. The problem is especially acute on the considerable acreage of timber in small ownership. Here the continued "creaming off" of the better timber has resulted in a residual stand of low value under present use standards. Research is needed to develop uses for this presently unmarketable timber. Many of the areas currently experiencing severe economic distress must look to full and effective use of their timber resources as the primary means for permanent improvement of their economic situation. The Federal Government itself markets over $150 million worth of timber each year. The value of this timber can be greatly enhanced by the development of more profitable uses. Also proper forest management will be facilitated by developing markets for thinnings and other low-value timber.

The 1965 program will support basic and applied research in forest products utilization, aimed at furthering intelligent and profitable use of the timber crop. The work involves the development of new and improved processes and uses, the improvement in the serviceability of wood in use, and characterization of timber and timber products for specific end uses. Attention will be focused on the problems of developing new and improved industries for areas now experiencing economic distress. Emphasis will be given to the utilization of hardwoods which are abundant in most of these depressed rural areas. More attention will be given to applied and developmental research which would result in the early establishment of new industries.

*(23) Forest engineering research, $300,000*

An increase of $75,000 would be used to develop new engineering systems for harvesting and transporting timber in situations where (*a*) low quality, small volume, or small size of timber leads to marginal operations, (*b*) national forest timber is now inaccessible and inoperable because of excessive road building costs, and (*c*) new systems of logging are required on steep ground or high value watersheds.

Forest engineering research involves developing new systems and techniques of forest resource production, protection, and utilization that will lower costs and improve the efficiency of operations. It is concerned with better engineered performance and mechanization in the more complex aspects of multiple-use practices. Multiple-use requirements dictate that new and sometimes revolutionary systems be developed to facilitate protection and optimum production for all uses of the forest under intensive management practices.

Vastly improved transport and harvesting methods are needed to assure protection of soil and water resources, to harmonize timber harvesting with other multiple-use requirements such as recreation, and to avoid loss of timber-growing areas to road rights-of-way. Industrial research in engineering has been confined to specific equipment for scattered unrelated projects with relatively limited objectives in contrast to research on coordinated systems required by multiple-use considerations. The Forest Service's engineering research program is designed to fill this latter need. The relative inaccessibility of many national forest lands and their high values for recreation, watersheds, wildlife, and timber require strong engineering advances.

It is estimated that in Oregon and Washington alone there are at least 28 billion board feet of timber characterized by low volumes per acre, steep terrain, or costly road access which will require special harvesting and removal techniques, such as by helicopter or other systems and machines specially developed to accomplish harvesting of this timber. In Alaska, there are an estimated 61 billion board feet of timber which cannot be successfully logged with conventional systems because they are either too costly to the operators or too damaging to soil, water, and scenic values. Logging systems and equipment specially designed for economical timber harvesting and cultural operations on small woodland ownerships are nearly nonexistent. Specialized equipment is urgently needed. In eastern hardwoods, some 74 percent of the total volume is considered low grade and culls. Vastly cheaper harvesting methods must be developed if such low-quality timber is to be removed economically and the sites replanted to better species. Sharply reduced nursery and planting costs are needed to accelerate the job of replanting 50 million acres of idle or poorly stocked commercial forest land.

In fiscal year 1965, emphasis will be placed on evaluation and adaptation of helicopter logging systems in the Pacific Northwest and Alaska; low-cost transport of woodpulp chips by pipeline or other methods that will permit economic utilization of small-sized timber; better engineered systems of harvesting low-grade timber on small forest properties and mechanization of harvesting and site conversion.

*(24) Forest survey, $1,854,000*

An increase of $150,000 would be used to accelerate and strengthen survey activities to make available essential forest resource information needed for planning major forestry programs and forest industrial development. Survey activities would be intensified especially in the Lake States, Pacific, and Southern regions where the need for up-to-date resource information is most pressing.

The forest survey provides a continuing inventory of the Nation's important forest land and timber resources including the area, location, and condition of forest resources, timber volumes available, rates of timber growth, cut, and mortality, and trends in timber supplies. The forest resources of the Nation, comprising some 775 million acres, vary greatly in productivity and availability for

industrial use and show widely divergent trends in growth and depletion. Federal, State, and local forestry agencies need up-to-date knowledge of the changing trends in timber supplies to provide an evaluation of the effectiveness of and need for forestry programs, including programs for redevelopment of rural areas where timber resources are important. Because of increasing pressures among the various uses of forest land, and rapidly changing resource and industrial conditions, forest industries rely more and more upon the forest survey for resource information essential to business decisions regarding land acquisition, wood procurement programs, and the feasibility and locations of new or expanded industrial plants.

The proposed budget will make possible increased survey efforts to more adequately meet needs for forest resource information in regions where timber supports a major segment of the economy. Special attention would be given to appraising the availability of timber resources for rural areas where timber is the primary resource available on which to base additional economic activity and employment. Surveys also would be accelerated in the Pacific and Southern States where rapid changes occur in timber resources due to growth, heavy industrial cutting, and changes in land use. As a result of inflationary factors and increased needs for resource data, the area surveyed annually has declined from about 53 million acres in 1949 to 43 million acres at present. Coverage of about 55 million acres annually, or an average resurvey cycle of about 10 years for the country as a whole, is deemed desirable to meet essential needs for resource data. Amendment of forestry survey legislation in 1962 raised the annual authorization for the forest survey from $1,500,000 to $2,500,000 to permit faster progress on this important research project. The requested increase will not permit meeting the goal of surveying 55 million acres annually but will reverse the downward trend of the last few years.

*(25) Forest products marketing research, $1,016,000*

No program increase is proposed for fiscal year 1965.

Forest products marketing research includes a wide variety of studies aimed at expanding uses of wood through development of more efficient arrangements and practices for harvesting, processing, selling, and distributing forest products. Marketing research also includes studies to appraise the feasibility of new or expanded timber industries, particularly plants based on low-quality timber of little-used species and the available resources in economic problem areas. Other research involves comprehensive analyses of trends in consumption and potential future demands for lumber, pulp and paper, and other wood products for construction, manufacturing, shipping, and other end uses, and the relation of prospective markets and timber supplies.

Many forest landowners fail to realize full returns from timber management and harvesting because of lack of market knowledge and ineffective timber marketing systems. Inefficient processing and marketing of timber products results in low returns to many wood-processing industries and difficulties in competing with nonwood materials in many consumer markets. Development of new or expanded markets for wood products is of importance to several million landowners and is especially needed in low-income rural areas in need of economic development. Research to appraise the outlook for future timber requirements and prospective markets is of particular importance both to wood-using industries and to Federal and State forestry agencies in guiding formulation of forestry policies and programs.

Emphasis will be given studies of possible methods for increasing efficiency and lowering costs in the harvesting, processing, and marketing of forest products in the major timber-producing regions. Market development studies will determine the quantity, location, and kinds of timber available in specific areas, and the economic feasibility of establishing new or expanded wood-using industries, especially in heavily forested low-income areas. Research on timber valuation and pricing procedures will include methods for estimating logging and milling costs, end-product values, and profit allowances as a basis for improved appraisals in marketing both public and private timber. Studies will be continued of nationwide trends in present and prospective demands for wood products and competing materials and the outlook for wood in various markets. Such information, together with projections of timber supplies, is vitally needed for judging the Nation's timber situation and outlook and the need for major forestry programs.

*(26) Forest economics research, $540,000*

No program increase is proposed for fiscal year 1965.

Forest economics research provides information on income, prices, costs, and investment guides relating to use of the 4.5 million individual forest ownerships

that make up some 60 percent of the Nation's commercial forest land, to the management of more than 60 million acres of industrial forests, and to the administration of 130 million acres of national forests and other public lands. This research includes studies involving the economic benefits from establishing, managing, protecting, and harvesting of timber crops; the development of principles and guides for the coordinated management of timber and other land uses for water, recreation, livestock, and wildlife; and the evaluation of alternative public and private forestry programs on various classes of ownership.

Pressures on both public and private forest lands for production of timber, recreational services, and other products of the land are steadily increasing, and problems of achieving efficient allocation of capital and administration of forest land have correspondingly intensified. Forest economics research serves to guide actions to achieve increased benefits from the most efficient forest enterprises, and to provide an objective basis for resolving problems and conflicts in an expanding forest economy.

Research must identify the most promising opportunities for improving forest income and employment and determine possible adjustments in public forestry programs or new measures for improving the level of management and productivity on the vast forest area in small forest holdings. Research will be continued in all important forest regions to appraise the benefits realizable from investments in planting, timber stand improvement, and other land treatment measures as influenced by site, accessibility, markets, and other factors. Studies of the economic aspects of insect and disease control programs relating to white pine blister rust and dwarf mistletoe, for example, will be continued in the West and Northeast as a guide to size and intensity of programs. Research on critical problems of multiple-use management will also be continued in the West to help resolve conflicts among recreation, timber, and other forest land uses in problem areas where there is need for improved economics criteria to guide the management of forest land.

(27) *Forest research construction, $3,800,000*

An increase of $3,165,000 would be used for construction of an addition to the Forest Products Laboratory, Madison, Wis. In fiscal year 1963 Congress appropriated funds for the architectural and engineering planning of this Laboratory so construction could be started early in fiscal year 1965. The proposed construction is an addition to the existing Laboratory built in 1932 which is now entirely inadequate. The added space would accommodate research emphasizing the development of new uses and improvement of existing uses for wood and fiber products. Also, space would be provided for research in wood chemistry, wood engineering, and wood quality. The proposed facility is essential to speed research on problems confronting a countrywide distressed domestic lumber industry. This work will directly benefit many of the rural areas currently experiencing economic distress where the lower quality timber and the sizes and species now little used predominate. Finding ways to effectively utilize these timber resources is basic to the development and operation of permanent timber-based industries which will provide stable employment, markets for existing forest products, and improved local economies. Such utilization will also materially add to the usable timber resources of the Nation for meeting future forest products needs.

No other major construction is provided for in 1965. However, approximately $60,000 of other research project funds will be used in connection with the planning and design of a combined regional office and research station headquarters at Philadelphia, Pa.

The 1964 appropriation provided for the following nonrecurring construction items:

| | |
|---|---|
| Alexandria, La | $450,000 |
| Designs and specifications for the following: | |
| Morgantown, W. Va | 31,500 |
| Fort Collins, Colo | 79,000 |
| Sewanee, Tenn | 18,500 |
| Missoula, Mont | 28,000 |
| Houghton, Mich | 28,000 |
| Total | 635,000 |

*(28) Cooperation in forest fire control, $12,758,000*

An increase of $250,000 would be used to strengthen this program which covers about 440 million acres of forest land and nonforest watersheds in 49 States. These State and private forest lands produce 85 percent of all our forest products and play a key role in the Nation's economy. The annual burn on these lands is being reduced, but still far too much is burning each year. Over the past 10 years the annual burn has averaged almost 6 million acres, an area the size of Vermont. The direct losses during this same period averaged $80 million each year, including damage and costs. This reported loss does not include indirect losses to timber due to decay following a forest fire, replacement of desirable species by less valuable ones; or site deterioration and erosion, uncertain streamflow; or the destruction of fish and game habitat, and recreational resources.

The Forest Service cooperates with the States to secure permanent and adequate fire protection for State and private forest and watershed lands Each State exercises direct supervision and administration of the fire job within the State but Federal guidance, leadership, and financial assistance are necessary for nationally correlated permanent and adequate fire protection. State forestry agencies are doing much to reduce fire losses. Single forest fires that burned 3 million acres were not uncommon in the early 1900's. Losses to forest resources were severe and lasting As a result of State-Federal efforts large fires are now uncommon and resource losses have been greatly reduced. The most recent study shows that it would cost $83.5 million annually to provide adequate protection to 435 million acres of forest and watershed lands. In fiscal year 1962 total Federal-State expenditures were over $64 million. The Federal contribution to this program was $12.5 million. In spite of this progress, fire protection effort is only about 75 percent of that needed. Not all of the acres in need of organized protection is now getting it. Some 24 million acres are unprotected and over 200 million acres are not well enough protected to prevent excessive fire losses during hazardous seasons.

The 1964 appropriation is $12.5 million. Annual State and private expenditures during the past 10 years have increased by over $26 million. During the same period, Federal funds increased but $3 million.

Fifteen years ago Federal financial assistance in cooperative forest fire control was 40 percent of the total cost; 10 years ago it was 25 percent; and now it is 18 percent. The Clarke-McNary Act authorizes a 50–50 sharing of the costs and an annual appropriation of $20 million.

Adequate forest fire protection is particularly important to the economically distressed areas as their future economy is so greatly dependent upon their timber, recreation, wildlife, and water resources Due to the nature of the fire problem, such protection must be provided through the States, as it is impossible for the individual small landowner to provide adequate fire protection for his lands Failure to provide such fire protection can result in the destruction of these resources with a resulting serious immediate and long-term economic impact.

The proposed 1965 program would make possible some intensification of protection on lands now under organized protection but where serious fires occur during hazardous fire weather due to protection inadequacies. The increase would be used to add fire protection manpower and equipment. Fire prevention work would be stepped up by using more manpower and educational equipment to reduce the mounting number of fires. With more and more people using the forested areas, the chances of fire starting has increased. There has been an average of 112,000 fires each year over the past 10 years. The number of wildfire starts has not been in a steady decline as has the area burned. Ninety-seven percent of these fires are man-caused.

### Cooperative Forest Fire Control Program

The following table shows fiscal year 1964 tentative allotments to States and the fiscal year 1963 expenditures for the State and private cooperative forest fire control program.

| | State and private funds expended, fiscal year 1963 | Federal allotments, fiscal year 1964 [1] | | State and private funds expended, fiscal year 1963 | Federal allotments, fiscal year 1964 [1] |
|---|---|---|---|---|---|
| Alabama | $1,134,546 | $390,500 | New Hampshire | $239,633 | $85,200 |
| Alaska | 188,569 | 47,000 | New Jersey | 503,713 | 130,100 |
| Arkansas | 1,103,773 | 375,500 | New Mexico | 141,371 | 47,000 |
| California | 16,537,366 | 1,112,000 | New York | 828,397 | 289,700 |
| Colorado | 123,891 | 48,200 | North Carolina | 1,591,100 | 451,900 |
| Connecticut | 311,514 | 61,200 | North Dakota | 9,235 | 14,000 |
| Delaware | 15,264 | 15,500 | Ohio | 322,755 | 120,400 |
| Florida | 3,231,441 | 571,200 | Oklahoma | 203,428 | 168,800 |
| Georgia | 3,035,464 | 575,200 | Oregon | 2,436,856 | 544,200 |
| Hawaii | 33,065 | 30,000 | Pennsylvania | 1,159,609 | 255,700 |
| Idaho | 449,555 | 201,500 | Rhode Island | 118,797 | 47,000 |
| Illinois | 135,888 | 68,100 | South Carolina | 1,408,155 | 387,700 |
| Indiana | 114,825 | 51,900 | South Dakota | 65,832 | 47,000 |
| Iowa | 81,328 | 47,000 | Tennessee | 1,158,529 | 355,200 |
| Kansas | 8,908 | 15,000 | Texas | 869,450 | 338,100 |
| Kentucky | 791,423 | 246,400 | Utah | 117,491 | 47,000 |
| Louisiana | 1,704,659 | 477,100 | Vermont | 55,545 | 47,000 |
| Maine | 981,953 | 330,300 | Virginia | 1,155,517 | 355,600 |
| Maryland | 451,061 | 149,800 | Washington | 2,940,095 | 553,500 |
| Massachusetts | 387,369 | 133,500 | West Virginia | 366,697 | 167,200 |
| Michigan | 1,964,735 | 480,300 | Wisconsin | 1,641,810 | 423,800 |
| Minnesota | 751,900 | 302,900 | Wyoming | 41,384 | 47,000 |
| Mississippi | 1,868,567 | 457,700 | Administration, inspection, prevention, and special services to States | 865,500 | 914,500 |
| Missouri | 823,679 | 274,700 | | | |
| Montana | 372,929 | 137,300 | | | |
| Nebraska | 15,909 | 25,000 | | | |
| Nevada | 250,015 | 52,100 | Grand total | 55,110,495 | 12,514,500 |

[1] While the amount available to a State may, if the allotment is small, exceed previously computed expenditures by that State, the actual payment to a State never exceeds State and private funds expended by or expended under the control of the State.

*(29) Cooperation in forest tree planting, $300,000.*

No program increase is proposed for fiscal year 1965.

The Forest Service cooperates with the States through financial assistance and technical and other services in the production, acquisition, and distribution of forest and windbarrier planting stock to assure an adequate supply for planting at a reasonable price that will encourage forest tree planting on private and non-Federal public lands. Current estimates indicate that there are 70 million acres of unproductive lands in these ownerships in need of forestation by planting and seeding. At the current forestation rate, it would take over 70 years to accomplish this forestation work. Most estimates of future needs for timber indicate that the rate of forestation needs to be at least doubled or possibly tripled. Federal leadership and financial participation is necessary to restore these unproductive lands to productivity and meet the Nation's timber resource needs and strengthen the basis for stronger local economic stability. This cooperative forest tree planting program also provides, from State-owned forest tree nurseries or by purchase from commercial nurseries, planting stock needed for Federal conservation programs under authority of the (*a*) agricultural conservation program, (*b*) Flood Control Acts of 1936 and 1944, (*c*) title IV of the Agricultural Act of 1956, (*d*) Watershed Protection and Flood Prevention Act of 1954, (*e*) Great Plains conservation program, and (*f*) Food and Agricultural Act of 1962.

Program objectives are, through cooperation with 48 States and Puerto Rico, to maintain in efficient operating condition more than 100 State forest and windbarrier planting stock nurseries and packing, distribution, seed processing and seed and seedling storage facilities, and to use effectively these facilities to grow and distribute windbarrier trees for planting on non-Federal land. The Federal financial contribution cannot exceed in any State the net State expenditures. Of particular importance is the support to be provided the States in the improvement of nursery facilities and operation, planting stock storage and transportation facilities, seed acquisition, production, processing, and storage in addition to financial help in growing and delivering the planting stock to landowners at reasonable prices. A strong nationwide State tree planting stock production and distribution program will be maintained to meet on short notice increases in demand for trees which could develop from the tree planting incentives in the Food and Agricultural Act of 1962, public works acceleration or other programs.

The 1965 objective is to assist the States in production of 800 million high quality seedlings for distribution to private landowners for reforestation of approximately 1 million acres.

*(30) Cooperation in forest management and processing, $3,018,000*

An increase of $500,000 would be used to provide technical assistance to an additional 18,000 of the owners of the Nation's 4.5 million small private forests and to 1,000 of the 50,000 operators of small sawmills and plants processing primary forest products. The owners to be served do not have the necessary technical skills to manage their forest lands or market specialized products. The processors of primary forest products to be served through whom small woodland owners find markets need technical assistance in processing and marketing timber and other forest products. These technical services will derive from the affected local forest resources the benefits for the rural community that these resources are potentially able to contribute.

The objectives of the program are to help as many of the owners and the loggers and processors serving them as is feasible to produce a greater volume, variety, and value of products from the 257 million acres of small private forests. Local economies in particular and the national economy in general will be benefited by improved returns to the small woodland owner. Improved management of these small forest ownerships will contribute to the solving of rural area and community problems of underemployment and low income and to the general economic and social well-being of rural areas.

To accomplish these objectives the Forest Service cooperates with 49 States and Puerto Rico. Through this program the States employ Service foresters to provide technical advice and service to woodland owners in multiple use management which includes tree planting and seeding; natural regeneration of timber stands; protection from fire, diseases, insects, and animals; timber stand improvement; timber harvesting; marketing of timber and special forest products; erosion control on woodland and logging roads; watershed protection; woodland grazing and recreation and wildlife management. These Service foresters or other specialists employed by the State foresters also give technical advice to loggers and processors on improved techniques, making more complete and better utilization of the timber, reducing costs, and making better products. They also assist in locating markets, determining market demands, improving marketing procedures, and scheduling production to meet market needs.

The Service foresters directly support other related national programs including rural areas development, area redevelopment, civil defense, agricultural conservation, soil conservation districts, and the Farmers Home Administration forest credit program.

The proposed fiscal year 1965 financing, when matched with State funds, would make it possible to provide assistance to 111,000 forest landowners and 10,000 processors of primary forest products.

*(31) General forestry assistance, $879,000*

An increase of $250,000 would be used to provide specialized technical forestry assistance in planning and activating programs involving the use of forest lands and the available industrial wood which will improve the economic and social well-being of communities and people largely dependent for employment and other financial benefits from the use and management of forest land and the processing of its products.

With the above increase, an additional 15 forest specialists would be employed largely to provide specialized technical services to State and local groups in support of the Department of Agriculture rural areas development program by giving assistance primarily to local committees and groups on timber inventory, markets for timber products, plant layout, economic aspects of timber industries, forest recreation possibilities, and other information concerning forests and products of forests. More than half of the States have large undeveloped rural areas. Most of these areas contain privately owned woodland resources that are not contributing their share or potential to the economic welfare of the community. Profitable uses must be found for these land, water, and timber capabilities. Recreational opportunities hold great promise. Markets must be found for the quality of timber available, and the timber must be processed as far as possible within the area to create employment for local labor. These areas need much greater and rapid help in recognizing and developing opportunities for multiple use of these resource potentials.

The objective of this program is to provide specialized technical services not available through other programs or authorities to stimulate interest in and to

help guide forest landowners, forest products processors, forest products marketing agencies, State and local planners, financing organizations and others in more adequately managing and utilizing the forest land resources for the benefit of the land resource, the landowners, the processors, the local labor resource and the local, State. and National economies.

To accomplish this objective the Forest Service provides specialized technical assistance to State forestry organizations, universities, industrial and consulting foresters, private owners of large forest properties, other Federal forest property managers such as Atomic Energy Commission and military agencies, and to forest products processors. It also works with other Federal, State, and local groups in servicing the rural areas development program. It performs the forest management work in the Virgin Islands formerly carried on by the Virgin Islands Corporation. Work is also performed in cooperation with defense agencies in connection with emergency supplies of timber and other forest products.

The proposed 1965 financing would make it possible to more effectively serve the rural areas development groups and to stimulate improved forest management on 8 million acres of large private and industrial, State and local public and other Federal forest ownerships, and to assist forest products processors.

*(32) Increased pay costs (Public Law 87-793), $2,338,000*

An increase of $2,338,000 for pay costs pursuant to Public Law 87-793 for fiscal year 1965 costs of the additional increase effective January 5, 1964. The 1964 appropriation includes costs related to the second step of the pay increase for approximately one-half year. In order to continue all programs financed from this appropriation at the 1964 program levels, the additional salary cost impact for a full year must be provided. Failure to provide for this additional cost would seriously curtail these programs as it would not be possible to accomplish the full amount of work planned under these budget estimates.

| | |
|---|---|
| Forest land management | $1, 829, 000 |
| Forest research | 471, 000 |
| State and private forestry cooperation | 38, 000 |
| Total | 2, 338, 000 |

In evaluating the importance of providing for this increase, it must be recognized that major pay cost absorptions are being made in other programs which are directly related to the forest land management subappropriation activities. The total estimated 1965 cost absorption impacts are:

| | |
|---|---|
| Expenses, brush disposal | $390, 000 |
| Cooperative work, Forest Service (sale area betterment) | 785, 000 |
| Working capital fund | 475, 000 |
| Total absorptions | 1, 650, 000 |

NURSERIES

Chairman HAYDEN. I note that a part of your proposed reforestation and stand improvement program involves development and improvement of nurseries at 10 locations. Would you please insert in the record a table showing the locations of each of these nurseries?

Mr. CLIFF. Yes, sir. We will be glad to do that.

(The statement referred to follows:)

LOCATION OF NURSERIES

The locations of the 10 Forest Service nurseries scheduled for improvement in fiscal year 1965 are:

Arcata, Calif. (Humboldt Nursery).
McCloud, Calif. (Mount Shasta Nursery).
Placerville, Calif. (Placerville Nursery).
Boise, Idaho (Lucky Peak Nursery).
Watersmeet, Mich. (Toumey Nursery).
Wellston, Mich. (Chittenden Nursery).
Eveleth, Minn. (Eveleth Nursery).
Brooklyn, Miss. (Ashe Nursery).
Bend, Oreg. (Bend Nursery).
Carson, Wash. (Wind River Nursery).

ACCELERATED PUBLIC WORKS PROJECTS

Chairman HAYDEN. It would be well at this point to insert in the record a table showing, probably by regions, the Accelerated Public Works Projects accomplished during the past year. Include in the tabulation those projects which will be accomplished during the remainder of this fiscal year. I think that the table should indicate the types of public works and the number of each type, as well as the total cost of the projects. If other than Federal money was used, indicate the contributor and the amount of the contribution for each project which was a cooperative one.

Mr. CLIFF. We will be glad to furnish that for the record, Mr. Chairman.

(The tables referred to follow:)

*Summary of major accomplishments, Federal projects, by regions, fiscal years 1963 and 1964*

| Project description | R-1 | R-2 | R-3 | R-4 | R-5 | R-6 | R-7 | R-8 | R-9 | R-10 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Camp and picnic area family units, construction | 842 | 251 | 122 | 605 | 524 | 305 | 834 | 1,248 | 2,236 | ---------- | 6,967 |
| Other recreation sites, construction or expansion | 88 | 28 | 31 | 37 | 11 | 21 | 79 | 118 | 195 | ---------- | 608 |
| Tree planting (acres) | 563 | 304 | 137 | 177 | ---------- | 100 | 599 | 4,803 | 12,636 | ---------- | 19,319 |
| Timber stand improvement and release (acres) | 13,158 | 1,606 | 21,685 | 890 | ---------- | 2,898 | 16,578 | 41,567 | 104,391 | ---------- | 202,773 |
| Wildlife habitat range improvement (acres) | 1,450 | 295 | 3,020 | 119 | ---------- | ---------- | 904 | 3,842 | 9,099 | ---------- | 18,729 |
| Wildlife water developments (number) | 13 | 1 | 54 | 5 | 2 | ---------- | 211 | 529 | 171 | ---------- | 986 |
| Fish stream improvement (miles) | 6 | ---------- | 26 | 1 | 1 | 25 | 7 | 31 | 18 | ---------- | 115 |
| Lake fish improvement (acres) | 6 | 2 | ---------- | ---------- | 7 | ---------- | 8 | 261 | 714 | ---------- | 998 |
| Range revegetation (acres) | 15 | ---------- | 3,510 | 157 | 73 | ---------- | 205 | ---------- | 318 | ---------- | 4,278 |
| Range fence construction (miles) | 201 | 142 | 339 | 276 | 33 | 77 | 9 | 145 | 6 | ---------- | 1,228 |
| Range water developments | 57 | 5 | 54 | 33 | 1 | ---------- | 5 | 107 | 12 | ---------- | 274 |
| Soil erosion control (acres) | 241 | 1,500 | 8,936 | 1,665 | 1,485 | 43 | 84 | 3,984 | 18,015 | ---------- | 35,953 |
| Firebreaks, construction (miles) | ---------- | ---------- | 56 | 6 | 21 | ---------- | ---------- | 72 | 2,055 | ---------- | 2,210 |
| Fuel cover modification (acres) | 141 | ---------- | 2,152 | 462 | ---------- | 131 | ---------- | ---------- | 687 | ---------- | 3,573 |
| Structural improvements, construction: | | | | | | | | | | | |
| Dwellings, barracks, and cabins | 27 | 12 | 44 | 10 | 48 | 84 | 2 | 15 | 33 | 11 | 286 |
| Offices, service and storage buildings (construction and betterment) | 115 | 18 | 65 | 37 | 40 | 61 | 24 | 126 | 53 | 6 | 545 |
| Fire lookouts | 32 | 2 | 8 | ---------- | 5 | 3 | 4 | 8 | 7 | ---------- | 69 |
| Research facilities (over $20,000) | 1 | ---------- | 1 | ---------- | ---------- | 3 | ---------- | 7 | 5 | 1 | 18 |
| Construction and betterment, roads and trails: | | | | | | | | | | | |
| Road construction and betterment (miles) | 261 | 48 | 80 | 155 | 242 | 145 | 530 | 644 | 1,063 | 4 | 3,172 |
| Trail construction and betterment (miles) | 66 | 15 | 39 | 26 | 10 | 114 | 287 | 504 | 247 | 1 | 1,309 |

*Financing by regions, fiscal years 1963–64*

[In thousands of dollars]

| | R-1 | R-2 | R-3 | R-4 | R-5 | R-6 | R-7 | R-8 | R-9 | R-10 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Forest protection and utilization: | | | | | | | | | | | |
| Forest land management: | | | | | | | | | | | |
| National forest protection and management: | | | | | | | | | | | |
| Reforestation and timber stand improvement | 733 | 89 | 375 | 53 | 10 | 171 | 525 | 554 | 2,782 | 2 | 5,294 |
| Recreation-public use | 834 | 339 | 308 | 547 | 1,177 | 1,102 | 1,130 | 2,426 | 2,746 | 2 | 10,611 |
| Wildlife habitat management | 11 | 8 | 46 | 97 | 20 | 5 | 334 | 321 | 788 | 7 | 1,637 |
| Range revegetation | ---------- | ---------- | 1 | 27 | 5 | ---------- | 4 | ---------- | 9 | ---------- | 46 |
| Range improvements | 311 | 241 | 745 | 342 | 66 | 96 | 14 | 166 | 5 | ---------- | 1,986 |
| Soil and water management | 79 | 28 | 136 | 64 | 48 | 64 | 128 | 463 | 196 | ---------- | 1,206 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Forest fire protection | 12 | 14 | 157 | 3 | 49 | 26 | ---------- | 56 | 870 | ---------- | 1,187 |
| Structural improvements for fire and general purposes (construction and maintenance) | 2,795 | 518 | 2,343 | 977 | 2,888 | 2,978 | 878 | 1,420 | 1,427 | 491 | 16,715 |
| Total, national forest protection and managemnt | 4,775 | 1,237 | 4,111 | 2,110 | 4,263 | 4,442 | 3,013 | 5,406 | 8,823 | 502 | 38,682 |
| Insect and disease control: | | | | | | | | | | | |
| White pine blister rust control | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | 50 | ---------- | 1 | ---------- | 51 |
| Other pest control | 8 | 42 | 5 | 44 | 8 | 2 | ---------- | 24 | 13 | ---------- | 146 |
| Total, insect and disease control | 8 | 42 | 5 | 44 | 8 | 2 | 50 | 24 | 14 | ---------- | 197 |
| Total, forest land management | 4,783 | 1,279 | 4,116 | 2,154 | 4,271 | 4,444 | 3,063 | 5,430 | 8,837 | 502 | 38,879 |
| Forest research: | | | | | | | | | | | |
| Forest and range land treatment | ---------- | ---------- | ---------- | ---------- | 10 | ---------- | 20 | 93 | 138 | ---------- | 261 |
| Maintenance of improvements | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | 11 | 7 | 8 | 20 | 46 |
| Construction of improvements | ---------- | 30 | ---------- | ---------- | 22 | 115 | 174 | 264 | 323 | 23 | 951 |
| Total, forest research | ---------- | 30 | ---------- | ---------- | 32 | 115 | 205 | 364 | 469 | 43 | 1,258 |
| State and private forestry cooperation: | | | | | | | | | | | |
| Cooperation in forest fire control | 9 | ---------- | 2 | 31 | ---------- | 208 | 215 | 147 | 626 | 74 | 1,312 |
| Cooperation in forest tree planting | ---------- | ---------- | ---------- | ---------- | ---------- | 12 | 145 | 18 | 445 | ---------- | 620 |
| Cooperation in forest management and processing | ---------- | ---------- | 1 | ---------- | ---------- | 9 | ---------- | ---------- | ---------- | ---------- | 10 |
| Total, State and private forestry cooperation | 9 | ---------- | 3 | 31 | ---------- | 229 | 360 | 165 | 1,071 | 74 | 1,942 |
| Total, forest protection and utilization | 4,792 | 1,309 | 4,119 | 2,185 | 4,303 | 4,788 | 3,628 | 5,959 | 10,377 | 619 | 42,079 |
| Forest roads and trails: | | | | | | | | | | | |
| Construction | 1,136 | 387 | 505 | 846 | 611 | 1,598 | 2,652 | 4,172 | 3,783 | 94 | 15,784 |
| Maintenance | 85 | 16 | 30 | 83 | 117 | 48 | 751 | 806 | 987 | 12 | 2,935 |
| Total, forest roads and trails | 1,221 | 403 | 535 | 929 | 728 | 1,646 | 3,403 | 4,978 | 4,770 | 106 | 18,719 |
| Grand total | 6,013 | 1,712 | 4,654 | 3,114 | 5,031 | 6,434 | 7,031 | 10,937 | 15,147 | 725 | 60,798 |

*Summary of major accomplishments, State cooperative projects, by regions, fiscal years 1963 and 1964*

| Project description | R-1 | R-2 | R-3 | R-4 | R-5 | R-6 | R-7 | R-8 | R-9 | R-10 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Reforestation, acres planted | | | | | | | | 340 | 9,005 | | 9,345 |
| Acres of timber stand improvement | | | | | | | | | 400 | | 400 |
| Miles of firebreak constructed | | | | | | | 145 | | 18 | | 163 |
| Acres of fuel modification | | | | | | | | | 220 | | 220 |
| Dwellings, barracks, and cabins, constructed | 2 | | | | | 4 | 1 | 10 | 6 | 1 | 24 |
| Offices, service and storage buildings, constructed | 1 | | | | | 8 | 8 | 11 | 26 | 3 | 57 |
| Fire lookouts, constructed | | | | | | | | 2 | 19 | | 21 |
| Road construction and betterment, miles | | | | 18 | | 10 | 75 | | 1,022 | | 1,125 |
| Trail construction and betterment, miles | | | | | | | | | 73 | | 73 |

*State matching funds, accelerated public works grant-in-aid projects*

| State | Fiscal year 1963 | Fiscal year 1964 | Total State matching funds | State | Fiscal year 1963 | Fiscal year 1964 | Total State matching funds |
|---|---|---|---|---|---|---|---|
| Alaska | $77,500 | | $77,500 | New Mexico | | 2,609 | 2,609 |
| Florida | 74,800 | $7,241 | 82,041 | New York | 69,682 | 31,600 | 101,282 |
| Georgia | 76,813 | 3,000 | 79,813 | North Dakota | | 25,000 | 25,000 |
| Idaho | 12,212 | 8,500 | 20,712 | Puerto Rico | | 31,000 | 31,000 |
| Illinois | | 6,900 | 6,900 | Pennsylvania | 20,010 | | 20,010 |
| Indiana | 19,960 | 67,000 | 86,960 | Utah | 30,900 | 100,000 | 130,900 |
| Kentucky | | 9,856 | 9,856 | Washington | 90,076 | 100,000 | 190,076 |
| Maine | 6,667 | | 6,667 | West Virginia | | 15,000 | 15,000 |
| Minnesota | 160,771 | 368,400 | 529,171 | Wisconsin | 160,621 | 197,344 | 357,965 |
| Michigan | 9,500 | | 9,500 | | | | |
| Missouri | 69,250 | 63,600 | 132,850 | Total | 878,762 | 1,148,050 | 2,026,812 |
| New Jersey | | 111,000 | 111,000 | | | | |

RECREATION—PUBLIC USE

Chairman HAYDEN. Will you please comment upon the proposed use of the $26,010,000 requested for operation of recreation areas and facilities?

Mr. CLIFF. Yes, Mr. Chairman. I am going to ask Mr. Greeley, who is in charge of that activity, to respond.

Mr. GREELEY. Senator Hayden, the request for fiscal year 1965, $26,010,000 is an increase of $800,000. You have had called to your attention that our recreation business keeps on booming. The number of recreation visitors to the national forests has been increasing each year at 10, or 11, or 12 percent, right about that general area. And we see nothing in the immediate future to change this.

We have asked for this increase in order to have more funds to use, primarily for cleanup, maintenance, and the general policing of the areas that are being used by the increasing number of people.

Now the balance of the $26 million that has been requested will about maintain the same level of program as we have been operating on before, with the construction of about the same number of family units, something like 5,550 family units, and the carrying on of the management planning, the visitor information service, and rehabilitation of about 600 campgrounds that have not yet been covered in our efforts to rehabilitate.

Chairman HAYDEN. You will ease up the situation, but still not meet the need completely?

Mr. GREELEY. We are still going to run about 60 percent overuse of our facilities.

VISITOR INFORMATION CENTERS

Chairman HAYDEN. On page 19 of your explanatory notes you indicate that visitor information centers will be constructed at a number of locations. Would you please place in the record a table showing the locations and the proposed expenditure at each of them.

Mr. CLIFF. Yes, sir.

(The information referred to follows:)

## CONSTRUCTION, FISCAL YEAR 1965

### (a) *Primary visitor centers*

| | |
|---|---|
| Madison River Earthquake Area, Gallatin National Forest, Mont.: | |
| Plans, specifications, and supervision of contract | $5,500 |
| Contract construction | 81,500 |
| Other related facilities including exhibits and other equipment items | 8,000 |
| Subtotal | 95,000 |
| Cradle of American Forestry, Pisgah National Forest, N.C.: | |
| Plans, specifications, and supervision of contract | 5,000 |
| Contract construction | 70,000 |
| Other related facilities including exhibits and other equipment items | 5,000 |
| Subtotal | 80,000 |
| Total | 175,000 |

### (b) *Secondary units*

Small information centers and orientation buildings will be built at the following locations:

| Name | Location | Cost |
|---|---|---|
| Lochsa Visitor Center | Clearwater National Forest, Idaho | $13,000 |
| Idaho Springs Visitor and Information Center | Arapaho National Forest, Colo | 23,500 |
| Big Lake Visitor Center | Apache National Forest, Ariz | 17,000 |
| Lost Trail Pass Mobile Visitor Center | Salmon National Forest, Idaho | 11,000 |
| Sherando Lake Visitor Center | George Washington National Forest, Va | 14,000 |
| Hickory Nut Visitor Information Center | Ouachita National Forest, Ark | 12,500 |
| Oganz Visitor Information Center | Hiawatha National Forest, Mich | 11,500 |
| Ketchikan Mobile Visitor Center | South Tongass National Forest, Alaska | 9,000 |
| Total | | 111,500 |

### (c) *Guided and self-guided facilities*

| Name | Location | Cost |
|---|---|---|
| DeVoto Memorial trail | Clearwater National Forest, Idaho | $1,200 |
| Beaver Creek trail | Gallatin National Forest, Mont | 1,200 |
| Pikes Peak Nature trail | Pike National Forest, Colo | 2,000 |
| Mount Evans trail | Arapaho National Forest, Colo | 2,000 |
| Apache Trail auto tour | Tonto National Forest, Ariz | 1,500 |
| Santa Catalina auto tour | Coronado National Forest, Ariz | 1,500 |
| Gros Vente trail | Teton National Forest, Wyo | 1,000 |
| Cottonwood Canyon trail | Wasatch National Forest, Utah | 1,000 |
| Lake Valley trail | Eldorado National Forest, Calif | 1,500 |
| Hot Creek trail | Inyo National Forest, Calif | 1,300 |
| Kulsan Ridge trail | Mount Baker National Forest, Wash | 1,200 |
| Diamond Lake trail | Umpaqua National Forest, Oreg | 2,000 |
| Sherwood Lake trail | Monongahela National Forest, W. Va | 1,200 |
| Twin Lakes trail | Allegheny National Forest, Pa | 1,200 |
| 2000 B.C. Shell Mount trail | Francis Marion National Forest, S.C | 1,500 |
| Saline Bayou boat tour | Kistachie National Forest, La | 1,000 |
| Parsons Mountain trail | Sumter National Forest, S.C | 500 |
| Cut Foot Sioux trail | Chippewa National Forest, Minn | 1,200 |
| Silver Mines auto tour | Clark National Forest, Mo | 1,000 |
| Portage Glacier trail | Chugach National Forest, Alaska | 1,000 |
| Total | | 26,000 |

(d) *Other facilities and services*

| Name | Location | Cost |
|---|---|---|
| Overlook, Beartooth Highway | Custer National Forest, Mont | $2,500 |
| Wayside exhibit, Beartooth Highway | do | 1,800 |
| Wayside exhibit, Pass Creek Highway 160 | Rio Grande National Forest, Colo | 1,700 |
| Interpretive sign, Wolf Creek Pass | San Juan National Forest, Colo | 600 |
| Interpretive facilities, Desert Vista area | Tonto National Forest, Ariz | 2,600 |
| Headquarters exhibit, Lakeside ranger station | Sitgreaves National Forest, Ariz | 1,000 |
| Headquarters exhibit, Santa Fe S.O | Santa Fe National Forest, N. Mex | 1,200 |
| Overlook, Lower Mesa Falls | Targhee National Forest, Idaho | 1,300 |
| Interpretive facilities, Red Canyon | Ashley National Forest, Utah | 4,900 |
| Wayside exhibit, Primitive Caves area | Manti-Lasal National Forest, Utah | 1,000 |
| Interpretive sign | Sawtooth National Forest, Idaho | 500 |
| Interpretive equipment and facilities, Trinity Center Visitor Center. | Shasta-Trinity National Forest, Calif | 12,500 |
| Exhibits and trail, Heather Meadows-Kulsan Ridge. | Mount Baker National Forest, Wash | 3,200 |
| Overlook, Cape Perpetua | Siuslaw National Forest, Oreg | 4,000 |
| Overlook and trail, Spirit Lake area | Gifford Pinchot National Forest, Wash | 2,000 |
| Interpretive signs and trails, ice caves and lake area. | Deschutes National Forest, Oreg | 4,800 |
| Overlook, Jakes Rocks | Allegheny National Forest, Pa | 1,800 |
| Overlook, Lake Cumberland | Cumberland National Forest, Ky | 1,500 |
| Wayside exhibit, Houlstan | Jefferson National Forest, Va | 1,200 |
| Wayside exhibit, Rock Springs | Cherokee National Forest, Tenn | 2,400 |
| Wayside exhibit, Cliffside Lake | Nantahala National Forest, N.C | 2,300 |
| Interpretive exhibits, Juniper Springs | Ocala National Forest, Fla | 3,700 |
| Wayside exhibit, Fremont tower | Mark Twain National Forest, Mo | 1,300 |
| Wayside exhibit, Gorham | Shawnee National Forest, Ill | 1,200 |
| Interpretive exhibits, Gunflint ranger district | Superior National Forest, Minn | 1,500 |
| Total | | 62,500 |

RECREATION AT CHARLESTON MT., NEV.

Senator BIBLE. May I ask a question at that point, Mr. Chairman?

Chairman HAYDEN. Certainly.

Senator BIBLE. I do not want to lengthen the record unduly and I think this might be supplied for the record. I am very much interested in your facility at Mount Charleston in Clark County. I do not know if you can tell me what you have done to that and propose to do or whether you would like to supply that for the record, Mr. Cliff.

Mr. CLIFF. I would like to supply that for the record, Senator Bible. Maybe Mr. Greeley or Mr. Hendee will have a comment on that. I might say that Charleston Mountain is an unusual area in that it is a forested mountain in a desert. It is an oasis in the desert, and people from Las Vegas and southern California and many visitors who go into that area in the summer are attracted to the higher elevation for climatic relief and forest recreation.

Chairman HAYDEN. What is the altitude of the campground?

Mr. CLIFF. At about 8,000 or 9,000 or maybe up to 10,000.

Chairman HAYDEN. That would be very cool.

Senator BIBLE. The amazing part is that it overlooks Death Valley, and you can ski. It has a fine ski lift and lots of people will not believe this is true, but it it correct. They have beautiful mountains where you can ski and look at one of the hottest spots in the world.

Mr. CLIFF. That is correct. It is quite similar in climatic characteristics to the Catalina Mountains in Arizona. You know how people go up there in the summertime, Senator Hayden.

ANNUAL VISITATION AND PROGRAM STATUS

Senator BIBLE. Do you have any idea of the annual visitation that can be supplied?

Mr. CLIFF. We do have that, but I do not have it in mind.

Senator BIBLE. I would like to have that supplied for the record, as well as how far along you are on your program for recreational facilities there and what you plan on doing this next year. If you would supply that for the record.

Mr. CLIFF. We would be glad to, Senator Bible.

(The information referred to follows:)

CHARLESTON MT., TOIYABE NATIONAL FOREST, NEV.

1. Recreation use in 1963 in the Charleston Mt. area amounted to 198,000 visits, representing 225,000 visitor-days use. There were 188,900 visits made to campgrounds and picnic sites.

2. Facilities:

| | | |
|---|---|---|
| (*a*) | Presently developed: | |
| | Camp and picnic sites | 7 |
| | Family camp and picnic units | 235 |
| | Organization sites | 3 |
| | Summer homes | 31 |
| | Winter sports sites | 1 |
| | Observation (vista) sites | 1 |
| (*b*) | Planned new developments to year 1972 (estimated cost, $1,200,000): | |
| | Camp and picnic sites | 19 |
| | Family camp and picnic units | 967 |
| | Organization sites | 4 |
| | Observation sites | 4 |
| (*c*) | Planned developments for fiscal year 1964: | |
| | Construction of family camp and picnic units | 25 |
| | Development of roads (miles) | 4 |
| | Maintenance and cleanup of present facilities and areas. | |
| (*d*) | Planned developments for fiscal year 1965: | |
| | Betterment of family camp and picnic units | 50 |
| | Maintenance and cleanup of present facilities and areas. | |

3. Special items of interest:

(*a*) Prospectus for enlargement of the existing ski area has been prepared covering a new warming hut and ski tow to be built in calendar year 1964.

(*b*) Elevation of Charleston Mt. is 11,918 feet. Most recreation activities are enjoyed at 7,000 to 9,000 foot elevation.

RECREATION AT GREAT BASIN, NEV.

Senator BIBLE. I would like to have you supply information on what you are doing in the Great Basin. As I recall, there was a conflict in two Government agencies with reference to that. I do not know how much money you have spent there in recent years.

Mr. CLIFF. Do you mean the proposed Great Basin National Park?

Senator BIBLE. As you know, Chet Olson, who was a very fine man, was an advocate of developing this as a forest project. There were others who had the theory it should be developed as a national park. So I would be interested in your furnishing for the record exactly what you have done there in the past 2 years and what you propose to do in the next couple years. It can be supplied for the record.

Mr. CLIFF. We will be glad to do that, Senator Bible.

(The information referred to follows:)

GREAT BASIN, NEVADA NATIONAL FOREST, NEV.

1. Recreation use in 1963 amounted to 70,000 visits, representing 150,000 visitor-days use.
2. Facilities:

| | |
|---|---|
| (a) Presently developed: | |
| Camp and picnic sites | 4 |
| Family camp and picnic units | 78 |
| Water developments for domestic livestock | 27 |
| Drift fences (miles) | 43 |
| (b) Planned new developments to year 1972 (estimated cost, $550,000): | |
| Camp and picnic sites | 7 |
| Family camp and picnic units | 316 |
| Visitor information station | 1 |
| Organization site | 1 |
| Observation sites | 3 |
| Cleanup and maintenance of existing areas and facilities. | |
| (c) Planned developments for fiscal year 1964: | |
| Betterment of existing recreation facilities | $14,000 |
| Road surveys, Stella Lake (miles) | 5.2 |
| Trails, Baker Creek construction (miles) | 6.5 |
| (d) Planned developments for fiscal year 1965: | |
| Betterment of existing recreation facilities | $5,000 |
| Construction, family camp and picnic units | 12 |
| Trails, Bristlecone construction (miles) | 3.5 |
| Road construction (miles) | 5.2 |

3. Special items of interest:
(a) In 1963 there were 700 deer killed in the Great Basin area. Over 4,000 fishermen-days were spent catching over 2,600 pounds of fish.
(b) Forest Service is presently considering two applications for ski area developments—one is proposed for financing through RAD—and one through private financing.
(c) Sixteen special use permits in the area consist of (1) five road rights-of-way, (2) seven water transmissions, (3) one telephone line, (4) one irrigation reservoir, and (5) two range facilities.
(d) There are six grazing allotments within the area involving nine permittees. Grazing permits cover 937 sheep for 2,800 animal months, and 1,023 cattle for 3,729 animal months. On the allotments are 27 water developments and 43 miles of fence.
(e) There is a proposed sale of 50,000 feet of bug-killed timber in the area. It is planned to spend $2,000 this year to make a survey of the extent of bug-killed timber.

Chairman HAYDEN. Do you do the construction yourself at this place?

Mr. CLIFF. Yes, we either do it ourselves or contract to have it done. We use both methods.

RECREATION AT MOUNT GRAHAM, ARIZ.

Chairman HAYDEN. We have a similar situation in Arizona with Mount Graham where the Bureau of Prisons is cooperating in furnishing labor. You might make a statement for the record of the status of that project, as far as your contribution is concerned.

Mr. CLIFF. We will be very glad to do that, Senator Hayden.

Chairman HAYDEN. I would also like to have you place in the record the information on the highest altitude where you are camping.

Mr. CLIFF. Yes, sir; we will be glad to do that.

(The information referred to follows:)

MOUNT GRAHAM, CORONADO NATIONAL FOREST, ARIZ.

1. Recreation use in 1963 in the Mount Graham area amounted to 70,000 visits, representing 100,000 visitor-days use.
2. Facilities:

| | | |
|---|---|---|
| (a) Presently developed: | | |
| Camp and picnic sites | | 9 |
| Family camp and picnic units | | 121 |
| Organization sites | | 4 |
| Summer homes | | 99 |
| Commercial public service sites | | 1 |
| Recreation reservoirs (Riggs Flats) | | 1 |
| (b) Planned new developments to year 1972 (estimated cost, $820,000 based on projected use prepared in the national forest recreation survey of 1961): | | |
| Camp and picnic sites | | 6 |
| Family camp and picnic units | | 315 |
| Organization sites | | 1 |
| Summer homes | | --- |
| Observation sites (vista points) | | 4 |
| Visitor information station | | 1 |
| Commercial public service site (includes 1 winter sports site) | | 2 |
| Recreation reservoirs | | 2 |
| Trails | miles | 20 |
| Roads | miles | 6 |
| Cleanup and maintenance of existing areas and facilities. | | |
| (c) Planned developments for fiscal year 1964: | | |
| Rehabilitate Soldier Creek campground, family units | | 18 |
| Site preparation (thinning, cleanup, etc.) of future camp and picnic sites, acres | | 350 |
| Betterment of Swift Creek trail, miles | | 2 |
| Thinning for betterment of wildlife habitat, acres | | 40 |
| Maintenance and cleanup of existing facilities and areas. | | |
| (d) Planned developments for fiscal year 1965: | | |
| Betterment of Riggs Flat campground, family units | | 30 |
| Site preparation (thinning, cleanup, etc., of future camp and picnic sites acres | | 275 |
| Betterment of Swift Creek trail, miles | | 2 |
| Thinning for betterment of wildlife habitat, acres | | 40 |
| Maintenance and cleanup of existing facilities and areas. | | |

3. Special items of interest.

(a) The projections of recreation use in the Mount Graham area, prepared during the national forest recreation survey, for the year 1972, have already been exceeded. New projections of recreation use in this area are 150,000 visits by 1972 or more than twice the original figure and the current use.

(b) Highest elevation of recreation developments, 9,000 feet. (Most of the recreation developments are between 7,000 and 9,000 feet.) Visitors climb to the top of Mount Graham and go to the top of Heliograph fire lookout tower (10,028 foot elevation).

(c) Wildlife consists of whitetail deer, desert mule deer, bear, and wild turkeys. There are three trout streams which attract fishermen.

FOREST FIRE PROTECTION

Chairman HAYDEN. For forest fire protection, your request is $23,011,000. Would you please discuss just what you propose to do with this money, indicating examples of the practices which you may install.

Mr. CLIFF. I am going to ask Deputy Chief Nelson to respond to that question.

Mr. NELSON. Yes, Senator Hayden. We break that down into several different categories, and I might run through them.

First, as Mr. Cliff mentioned, we are very concerned about our fire prevention, because a fire that is prevented is one that does not get started and destroy valuable resources.

We expect to spend $3,300,000 of this amount for fire prevention work. We just held a very special training school out in New Mexico, a servicewide training school to help stipulate this program and get it going more efficiently.

Another important phase is the detection of fires and we expect to spend $3,200,000 for this. This is our lookout system. Many of our fires, of course, are caused by lightning and are not preventable and we must detect those as early as possible.

### Fire Attack Force

The largest sum we expect to put in the fire attack force, $13 million. That is the group of men with their equipment, trucks, other types of equipment, that do the attacking on fires. An important thing there is to be able to attack the fires and keep them small after they once start.

### Use of Indians

Chairman Hayden. Is that where you use the Indians in Arizona and New Mexico?

Mr. Nelson. We use a few Indians with our regular protection attack force. A major part of the Indians used in Arizona and New Mexico are organized groups that we use on the larger fires, Senator.

Chairman Hayden. They stand ready to go anytime you call them?

Mr. Nelson. That is right. After we get a larger fire and need larger crews, they are called, they are very well organized. That organization is carried on by the Forest Service in cooperation with the Park Service and others that use these Indians. The Bureau of Land Management also uses them. That is a very fine aid to us when a fire gets large enough to have to use larger crews.

Our hope is to catch the fires small with the smaller crews that are located in strategic locations in order that we do not have a large costly fire.

### Air Attack Program

Another phase is one where we expect to spend $2,100,000 this year, and that is our air attack program. That has grown in the past few years as the knowledge and techniques have improved for using aircraft.

Smokejumpers have been used since 1941, but about 1956 we started using aircraft for dropping water and chemicals. We practically use all chemicals now and that has proven very satisfactory, both in some of our large fires and in holding some of these small ones in a small state, until we can get the manpower into them.

### Fuel Modification or Fuel Break

Then we expect to use $300,000 for a project we call fuel modification or fuel break. We find that in some of our areas we have hazardous fuels that continue to grow up. We have had some very bad drought years in some areas which have changed fuel conditions. And that program uses some of this fire control money, but it also coordinates the management in the area to do the best job of making fuel breaks that will keep us from having some of these large disastrous

fires even though we have some fires that may get away from the initial attack stage.

### Fire Control Equipment Development

As you know, we have also put some money into equipment development in the fire control field. That is how we developed some of the air attack equipment. We expected to use $600,000 this year in improving our equipment. There are a number of things that are in progress in that field.

Then we expect to spend $511,000 in what we call studies, plans, special training, that type of thing. We are working at the present time with some of the latest training methods, training machines, so that we can train five crews faster and at less cost.

It also includes the type of studies that we do to make sure that we put our right forces in the right places. You may be interested in hearing a little bit about our trends in fire control. This committee has increased our fire protection money over the past few years, and we have a chart that will show the benefits better than anything else.

As Mr. Cliff mentioned, we have an increased use of the forests, and when we have increased use we have increased numbers of fires. This additional amount has given increased protection from fires.

You see on this chart that the potential burned area line is going up from 1955 to last year. That shows our expected burned area. Actually, because of the increased protection effort and improved techniques, made possible with the money that this committee has allowed us over the past few years, our trend in fire losses is going down materially.

So the part in between is what was saved in the actual resources. We estimate that for every additional dollar spent in fire protection during the period of 1956 to 1963 there was a resource damage savings of $5.

We certainly appreciate the committee making it possible for us to do a better job of preventing resource loss from fire.

### Forest Fire Prevention

Now, as Mr. Cliff mentioned, in our fire prevention it is a little different story. Our expected number of fires, as indicated on the chart goes up rather rapidly, because there is more use, both in timber and other uses, and general recreation use.

We have been able to keep our actual number of man-caused fires down below the number that might be expected, which indicates that we are doing a reasonable job. But what really bothers us is that our man-caused fire rate has gone up in the last few years, and we feel that we have a problem in connection with prevention that we must do some more work on.

### Educating the Public

Chairman Hayden. There is a problem of educating the public. That is, people who go into the forests to camp do not appreciate what it means to leave live coals. They just do not understand about the importance of putting every spark out before they go away.

Mr. Nelson. That certainly is a problem, Senator. We do have, as you know, the Smoky Bear campaign carried with the State forest-

ers and other agencies. We have fine cooperation with the National Advertising Council. That is one of their favorite programs, I understand—what they are doing with us in the forest-fire-prevention program.

But the increased number of people and the increased pressures on communities close to the forests is one of the major causes. We find, for example, kids playing with matches, is one of the types of fire causes that has increased very rapidly in the last few years.

I think you can understand that down in Arizona where there are more people in those communities that are in the forests, or close to the forests; southern California is another place where we have a very serious problem; and the same thing applies in Utah, where people are getting close to the forests. It just increases the risks tremendously.

### Gifford Pinchot Conservation Institute, Pennsylvania

Chairman Hayden. Thank you for your statement.

You have budgeted $200,000 to repair and remodel the Gifford Pinchot Conservation Institute in Pennsylvania. I wish you would advise the committee fully regarding this structure, indicating how it came into possession of the Forest Service, and the use to which it will be put.

Mr. Cliff. This is the ancestral home of Gifford Pinchot. It is located at Milford, Pa. It is a very substantial stone building and has a lot of historical significance. Several years ago the heirs of the Pinchot estate inquired as to whether or not the Forest Service would be interested in taking this over for some purpose, a research center or some other public service.

We looked into it to see what use might be made of it. We finally decided that it would make an excellent place for a National Conservation Education Training Center where schoolteachers and conservationists and educators from all over the country and, indeed, from all over the world, could assemble for study, for course work, and conferences.

### Cooperation With Conservation Foundation of New York

Then we started looking for a partner in this venture, and the Conservation Foundation of New York, which is one of the outstanding conservation agencies in the country, agreed to come in with us to help finance this training program.

We worked out a plan and an agreement with them wherein they will staff and finance the training work, the management of the conferences, and that sort of thing at this institute.

The Forest Service will maintain the buildings, and it is necessary to do some rehabilitation to make them suitable for the purpose. We would maintain the building and the grounds and work with the Conservation Foundation in developing and carrying forward the program on conservation education.

We have the title to the property now and have done some rehabilitation work on it. The program is being developed and we are ready to go forward with, but we do need this $200,000 for rehabilitation work.

You may recall that President Kennedy dedicated this Conservation Center last September. We feel very proud and very fortunate that this could be done before the recent tragedy. This was the first stop on the President's conservation tour at which he personnally dedicated the Center.

We want to move ahead with it.

Chairman HAYDEN. You want a plan that will really put this to good use?

Mr. CLIFF. That is correct.

### WEEKS ACT PURCHASES

Chairman HAYDEN. Last year the Congress added unbudgeted funds to your appropriations request for purchase of lands on the Chattahoochee National Forest in Georgia, and on the Ouachita National Forest in Oklahoma and Arkansas. Have you yet been able to consummate the purchases?

Mr. CLIFF. Mr. Nelson will tell you the status of those purchases, Mr. Chairman.

### CHATTAHOOCHEE NATIONAL FOREST

Mr. NELSON. The purchases on the Chattahoochee National Forest concern land where a scenic highway will eventually be built. We have voluntary agreements from all landowners to sell their property except one. This one tract is 35 acres, which will cost about $6,000. The owners refuse to sell as yet. We may have to condemn that one.

The others are moving along fine.

Chairman HAYDEN. What is the total area in that forest?

Mr. NELSON. In the purchases for which the funds were made available in fiscal year 1964 we expect to buy 1,300 acres.

### OUACHITA NATIONAL FOREST

Now, for the Ouachita National Forest: that purchase program involves about 140 separate owners of land. That would be for purchase along the scenic highway for which the funds have been appropriated. The program is moving along very well. We have appraised each one of the 140 properties. The owners have been contacted. They have been sent options to sign. We have just started to get the signed options back during the last few days. We have set the middle of next month as that is the time for all options to be returned.

We find that the people are very cooperative and the program is moving along very well, but we may have to condemn some tracts.

At the time the $262,000 was made available last year, we had not yet made appraisals. We did find that when we got in and made the appraisals, and we have had some commercial appraisers help us, that we were going to be a little short on money for the program.

It looks at the present time as though we will not be able to buy all of the land that is needed for this project. Fiscal year 1964 funds will fall short by about $80,000.

Chairman HAYDEN. You can put in the record your estimate of what the ultimate cost is in each of these cases.

Mr. NELSON. Yes, we will. Fund appropriated in fiscal year 1964 will be sufficient for the Chatahoochee National Forest. For the Ouachita National Forest the total need will be $342,000, $262,000 has been appropriated, $80,000 is still needed.

STATUS OF THE WEEKS LAW PURCHASE PROGRAM

Chairman HAYDEN. I note that your explanatory notes contain a statement that the development program for the national forests provides for the purchase and use of about 1,450,000 acres for recreation development and resource management purposes during the period 1963 to 1972. What is the status of this program?

Mr. NELSON. The Weeks law purchase program is moving along well considering the small part of the national forest program that is financed. We find that we have a great many owners of small tracts that come to us and ask us to buy their property.

We have right at the present time many tracts that people would like to sell. Actually we expect to use this $500,000 for tracts that have been offered to us for about a year with the owners hoping we could purchase soon. They are located in about 16 national forests.

At present we know of a sizable number of very desirable tracts within the Eastern National Forest that are for sale. The total cost of these tracts, tracts where the owner has indicated an unsolicited willingness to sell, is about $4,460,000. So the 1965 appropriation will buy a rather small part of what the people would like to sell.

Mr. CLIFF. Mr. Chairman, if I might supplement that. You asked the status of the land purchase part of the program for the national forests. The rate of accomplishment of this activity is at the lowest of any of the activities included in the program for the national forests.

For fiscal year 1965 the rate of accomplishment would be about 14.2 percent of that proposed under the program for the national forests.

Chairman HAYDEN. It is just giving it a kind of a start and that is about all.

PROPOSED LAND AND WATER CONSERVATION FUND

Also in the notes is a statement that there is an urgent need to acquire certain inholdings for expansion of public recreation areas. When the Land and Water Conservation Act becomes law will it then be necessary for you to acquire such lands as these through appropriations made to that fund?

Mr. CLIFF. The Land and Water Conservation Act will provide funds for purchasing key inholdings primarily valuable for recreation in the national forests. The bill, as it is written would provide that this money for acquisition would have to be appropriated by Congress before it is available. It would be used for purchase of lands where recreation is a key value. These are areas which would not normally be purchased under the Weeks law purchase program using Weeks law money that has been included in this budget. So it would be over and above the program that is planned under the program for the national forests.

There may be some overlapping but generally it will be over and above.

EFFECT OF ACQUISITIONS ON LOCAL ECONOMY

Chairman HAYDEN. What effects and relationships are there between the Forest Service land acquisition program and the local economy of these purchase areas?

Mr. CLIFF. This works in several different directions. We feel that in the places where we have bought forest land and rehabilitated it, there has been a very beneficial effect on the economy generally.

### MONONGAHELA NATIONAL FOREST, W. VA.

One example that we might point to is the Monongahela National Forest in West Virginia where we acquired depleted forest land. It is being restored and it is now a major factor in the economy.

We are increasing our timber output there and the quality of the timber is much better than is generally true in the surrounding country.

The recreation values have improved very greatly. One interesting point is that I saw a map the other day showing the private recreation facilities in West Virginia, showing the location of privately owned resorts and other enterprises that provide services for fishermen, hunters, and tourists, and it is quite noticeable that a great majority of them are clustered around the Monongahela National Forest.

This is also happening in other parts of the country.

### INHOLDING PURCHASES

We have situations where the local counties are urging us to buy inholdings in order to remove the necessity for expensive school bus transportation to remote families and to remove the pressure for year-long maintenance of roads to those private holdings. We have had instances in Arkansas, for example, where the counties have urged us to pick up these inholdings to reduce the local costs of the government.

On the other hand, there may be an adverse impact, when private land is removed from the tax rolls, and the counties look at these impacts, too. They scrutinize these proposed purchases. You know that the law requires that we advertise our acquisition proposals, and give the local people, including local government, a chance to comment or protest. And we have been able to get concurrence or approval of all of the Weeks law purchases that we have been able to finance.

So while there is some impact both ways, we think that the program we are carrying on is, on the whole, very beneficial.

### MARKHAM SPRINGS TRACT

Chairman HAYDEN. Senators Symington and Long have written to me urging that an area known as the Markham Springs tract, which lies within the Clark National Forest in southeast Missouri, be purchased by the Forest Service. Their letter will be printed in the record.

(The letter referred to follows:)

U.S. SENATE,
*Washington, D.C., February 20, 1964.*

Hon. CARL HAYDEN
*Chairman, Senate Committee on Appropriations*
*Senate Office Building, Washington, D.C.*

DEAR MR. CHAIRMAN: It is our understanding that the Subcommittee on the Department of Interior and Related Agencies is presently considering the fiscal year 1965 budget requests for the U.S. Forest Service.

In your deliberations, we would be most appreciative if consideration could be given to appropriating sufficient funds to allow the U.S. Forest Service to acquire the Markham Springs tract in southeast Missouri.

This tract consists of approximately 315 acres with about 1½ miles of frontage on the Black River in Wayne County, Mo., and is within the Clark National Forest. Because of its location and many natural wonders, the property is well suited for a large-scale recreational development.

It is estimated that 3½ million people live within 100 to 150 miles of this locality, and development of the tract would bring a much needed boost to the economy of local and adjacent communities.

At the present time, the owner of this property is offering to sell it to the Government for $100,000 and the Forest Service in a preliminary appraisal has confirmed that this is a reasonable price. There is no assurance, however, that this land will remain on the market for any length of time.

Since there is an unusual opportunity to acquire superior land for the National Forest purposes and recreational developments which are badly needed in this locality, we respectfully request that $100,000 be appropriated for purchase of the Markham Springs tract.

Sincerely,

STUART SYMINGTON.
EDWARD V. LONG.

Chairman HAYDEN. Would this be a desirable tract to be added to the national forests, and could it be purchased within the $500,000 proposed in this budget?

Mr. CLIFF. I would like Mr. Nelson to comment on that one.

Mr. NELSON. Senator, that tract would be a most desirable tract to add to the Clark National Forest. It lies near the center of the Poplar Bluffs ranger district, a little north of Poplar Bluffs. This particular tract consists of 315 acres.

It has about 1½ miles of fine river frontage on the Black River. It also has, as a major attraction, a very large spring. The spring runs about 3 million gallons a day. It is one of those large springs that come from limestone formation in that area.

### RECREATION DEVELOPMENT

This particular district has no really good land for development of recreation at the present time. So from that standpoint, it would be well to have a tract of this type that could be developed for good recreation.

Besides that, it is within about 150 miles of about 1½ million people in that general area. It is served by two good major highways which would make it very desirable.

### BALD EAGLE HABITATS

In addition to that, a lot of people, like the Audubon Society, are very interested in preserving the bald eagle habitat and this particular tract has some very fine bald eagle habitats. Under Forest Service management, we could help preserve this species.

As far as being able to purchase it under the $500,000 that is available in this budget, it would cost $100,000. We do not see that we can do it at this time. As I mentioned, the $500,000 is pretty well all committed at the present time on about 16 national forests east of the Great Plains.

### WEEKS ACT PURCHASES

Chairman HAYDEN. Would you please place in the record a statement indicating the Weeks Act purchases during the past 2 fiscal

years. Prepare this to show the number of acres, the forests to which they were added, and the amount expended for them.

(The statement referred to follows:)

*Weeks law obligations, fiscal year 1963*

| Forest | State | Number of options accepted | Acres | Obligation |
|---|---|---|---|---|
| Allegheny | Pennsylvania | 3 | 1,363.60 | $36,350.00 |
| Cumberland | Kentucky | 2 | 325.00 | 4,750.00 |
| George Washington | Virginia | 1 | 1,500.00 | 20,550.00 |
| George Washington | West Virginia | 2 | 274.00 | 2,043.00 |
| Green Mountain | Vermont | 1 | 77.00 | 928.70 |
| Jefferson | Virginia | 3 | 302.00 | 6,721.46 |
| Ozark-St. Francis | Arkansas | 21 | 3,413.59 | 98,480.50 |
| Chippewa | Minnesota | 2 | 280.00 | 7,247.74 |
| Lower Michigan | Michigan | 15 | 2,068.55 | 191,075.16 |
| Clark | Missouri | 1 | 80.36 | 4,500.00 |
| Nicolet | Wisconsin | 2 | 129.48 | 18,393.87 |
| Ottawa | Michigan | 3 | 842.00 | 8,326.48 |
| Shawnee | Illinois | 3 | 384.00 | 13,760.00 |
| Superior | Minnesota | 1 | 160.00 | 900.00 |
| Hiawatha | Michigan | 2 | 258.00 | 15,201.55 |
| Wayne | Ohio | 12 | 729.25 | 11,538.38 |
| Hoosier | Indiana | 15 | 1,627.41 | 31,225.48 |
| Mark Twain | Missouri | 3 | 332.25 | 7,649.20 |
| Total | | 92 | 14,146.49 | 479,641.52 |
| Surveys and related acquisition expenses | | | | 19,457.61 |
| Total obligation | | | | 499,099.13 |

*Estimated Weeks law obligations, fiscal year 1964*

| Forest | State | Number of options | Acres | Obligation |
|---|---|---|---|---|
| Jefferson | Virginia | 7 | 5,700 | $123,000 |
| Cherokee | Tennessee | 1 | 2,200 | 37,000 |
| Sumter | South Carolina | 1 | 80 | 1,000 |
| Ozark | Arkansas | 21 | 3,000 | 62,000 |
| Ouachita | do | 40 | 3,000 | 117,000 |
| Do | Oklahoma | 70 | 3,000 | 172,000 |
| Chattahoochee | Georgia | 11 | 2,700 | 211,000 |
| Mark Twain | Missouri | 2 | 1,000 | 75,000 |
| Clark | do | 1 | 60 | 3,000 |
| Shawnee | Illinois | 1 | 200 | 20,000 |
| Ottawa | Michigan | 5 | 2,300 | 26,000 |
| Manistee | do | 3 | 1,200 | 3,000 |
| Chippewa | Minnesota | 2 | 120 | 6,000 |
| Wayne | Ohio | 11 | 1,000 | 20,000 |
| Hoosier | Indiana | 6 | 360 | 26,000 |
| Total | | 182 | 25,920 | 902,000 |
| Surveys and related acquisition expenses. | | | | 60,000 |
| Total estimated obligation | | | | 962,000 |

## National Forestry Research Program

Chairman Hayden. For the past 2 years you have reported that the forestry research program was in the process of review. What is its present status and can you suggest when it might be available for the information of this committee?

Mr. Cliff. Mr. Chairman, I have to tell you that it is still in the process of review in the administration. It has moved forward some just in the last few weeks, and we are hopeful that this review will be completed in a short period of time, and we will then be able to release it to the Congress and to the public.

We are more encouraged now than we were a month or so ago. But it is moving forward. It is still under review.

### Timber Management Research

Chairman Hayden. Your proposed budget for timber management research is slightly below the amount appropriated in fiscal year 1964. With the $6,619,000 which you are requesting what will be your primary objectives?

Mr. Cliff. With reference to research, Mr. Chairman, Dr. Harper will respond to that question.

Dr. Harper. Mr. Chairman, the reason that we have a minus quantity at this time under timber management research is because of the program adjustments we made in order to take care of some high-priority problems in other related but currently lagging research activities.

One of them was for watershed research in Alaska. I think that is where most of the adjustment went. Another was for problems of forest insect research.

The primary objectives of the $6,619,000 requested are to reduce costs of timber production and increase the quality and yields of timber involving more than 100 species of trees that grow in the various forest types of the major forest regions of the United States. Each species and situation involves different and particular sets of problems. The timber management research constitutes the backbone of forest production research and includes silviculture, forest genetics, forest mensuration, and such timber-related crops as naval stores and maple sap.

### Restoration of Strip Mined Land

Chairman Hayden. Last year $150,000 additional was added to your budget for expansion of research on restoration of strip mined land in the Appalachian region. Would you please place in the record a statement indicating the total funds which were available to you for this purpose in fiscal year 1964 and the amount which you propose to use during fiscal year 1965?

Mr. Cliff. We will be glad to do that, Mr. Chairman.

(The information referred to follows:)

The forestry research funds available for strip mine research in fiscal year 1964 and included in the fiscal year 1965 budget are:

| | |
|---|---|
| Fiscal year 1964 | $170,000 |
| Fiscal year 1965 | 175,000 |

### STATUS OF THE PROGRAM

Chairman Hayden. What luck are you really having with this strip mining problem? Is it possible to do much good?

Dr. Harper. Yes, I would say so. Of course, the expanded program is just getting underway at the present time, but we feel quite confident that we will be able to devise improved methods of making the excavations and depositing the overburden, such that the watershed values will not be impaired to the extent that they have been in the past and rehabilitation of the disturbed areas made easier.

We have excellent cooperation of industry on this work. We just recently had a conference in which State and local agencies and the mining industry, itself, had representatives present to discuss the plans that we have for research, including the possibility of changes that could be made. And I believe everyone came away from this meeting feeling much encouraged by what could be done.

Chairman HAYDEN. Some of the areas that I have seen look like it is impossible that anything could ever be done with them.

Dr. HARPER. It is a bad sight at best, but these areas, I think, can be rehabilitated and if it is properly done, I believe that we can prevent the erosion, the sediment getting down into the streams, and even more important than that, prevent acid pollution in the streams.

Chairman HAYDEN. And develop a stand of timber?

Dr. HARPER. Oh, yes.

### WATERSHED MANAGEMENT RESEARCH—BEAVER CREEK, ARIZ.

Chairman HAYDEN. Watershed management research, as you know, is one of my prime interests. I have followed closely the Beaver Creek project in Arizona which is providing the answers to many questions of watershed management in the Southwest and intermountain region. I have had recent correspondence from the Arizona Water Resources Committee in which it requested additional financing for the watershed and related research programs in Arizona.

Will you supply for the record a summary of some of the more important results of the work you have done there, indicating the amounts available for each phase of the research, as well as additional funds needed to bring the project up to a balanced and adequate effort?

Mr. CLIFF. We will be glad to do that, sir.

(The summary referred to follows:)

*Status of the project*

| Phases of the research in the Beaver Creek project | Funds available in fiscal year 1964 and proposed in 1965 budget | Increase required for balanced and adequate program |
|---|---|---|
| Evaluation of watershed treatments | $100,000 | $45,000 |
| Use of fire as watershed measure | 15,000 | 45,000 |
| Estimated increase required | | 90,000 |

The status of the Beaver Creek project and explanation of the estimated increase of funds required for a balanced and adequate program of research is as follows:

On the Beaver Creek project, the instrumentation for measuring streamflow (24 stations) and precipitation (49 stations) has been completed and data are being prepared for analysis. Four installations for measuring sediment in streams are in operation and three others are yet to be installed. Range inventory plots are established and forage production and utilization estimates are taken each year. Four of the Beaver Creek experimental watersheds have been inventoried for timber volume and growth, but at least another year will be needed to inventory the remaining watersheds. Wildlife use of the watersheds is being determined as well as the use of the watersheds by hunters. All of these physical data are being collected to give a basis for an economic analysis and evaluation of watershed treatments, including use of fire, and results in terms of production. The first treatment of an experimental watershed to alter water yields has been completed with complete removal of the existing juniper cover and replacement with grass.

Relevant economic data are now being gathered. A report on the downstream value of water for agriculture is nearing completion. This will provide some reference figures for a datum in establishing the value of water in the watershed. Field measurements and compilation and analysis of data are now at high levels for this project and will be expanded further in the next 2 to 3 years as instrumentation and treatments of the watersheds are completed. Greatest attention will be given to the economic evaluation of treatments and uses of this pilot area.

Progress on analysis of data and publication of first results is seriously hampered by a lack of subprofessional and clerical personnel to make field measurements and compile the data. These additional personnel will permit needed time of the professional staff required to develop suitable physical and mathematical models for the analysis of data and subsequent evaluation. The physical aspects of the Beaver Creek project are well ahead of the evaluation work, and emphasis needs to be given to stepping up the evaluation effort. A further need is to strengthen research on the use of fire as a tool for watershed treatments and on the reduction of wildfire hazards. Prescribed burning offers promise as a means of controlling undesirable vegetation at reduced costs but much needs to be learned about the interrelationships between fuels, weather, and fire behavior before fire can be used safely and effectively in this region.

We are working with the Salt River Water Users' Association to develop a cooperative agreement which, if we can work it out, would result in extending to appropriate parts of the watersheds of the Salt and Verde Rivers watershed treatment measures which have been tested on the Beaver Creek project. The objective of the work would be to improve water yields from the national forest lands in harmony with other multiple use objectives. If the agreement is worked out, the association would contribute funds to finance some of the watershed treatment work, and the Forest Service would also finance treatment work now called for by the 10-year development program for the national forests. The association is anxious to see the work proceed at a rate faster than available financing will permit.

If we are successful in working out a program of cooperative financing, we will want to review this proposal for an expanded program with the committee.

### Research Laboratory, Tempe, Ariz.

Chairman Hayden. What is the status of the laboratory at Tempe for which construction funds were appropriated in fiscal year 1963?

Dr. Harper. That laboratory is nearing completion and it should be occupied shortly, Mr. Chairman. This was one that was financed in 1963.

Chairman Hayden. How much money is allotted to it for fiscal year 1965; and what can you accomplish with it?

Dr. Harper. This is for the research program?

Chairman Hayden. Yes, how much money is allocated for that program there?

Dr. Harper. I do not have that figure right before me. Could I furnish that for the record?

Chairman Hayden. Yes. What personnel will this permit you to employ? Is this sufficient to staff the laboratory at the level planned so that all of the work for which the laboratory was constructed can be accomplished? And that, again, you may furnish for the record.

Dr. Harper. If I may, please.

Chairman Hayden. If not, how much more money would be needed and how would you expend it? I would also like that for the record.

Dr. Harper. Yes, sir.

(The information referred to follows:)

#### STATUS OF THE PROGRAM

The $450,000 that was made available for construction in 1963 has provided an excellent laboratory facility. This Forest Hydrology Laboratory, located on the campus of Arizona State University at Tempe, will be completed and ready for occupancy late this spring. The laboratory and office space thus provided

will supply the needs of the program people now employed and those needed to bring research programs up to planned strength.

The funds available for research at the Tempe laboratory in fiscal year 1964 and proposed without change in the fiscal year 1965 budget are $220,000 for watershed management studies and $22,000 for related wildlife habitat studies, making a total of $242,000 in fiscal year 1965. The present staffing is 15, including scientists, technicians, subprofessional, and clerical personnel.

The additional funds required to implement the research planned at this laboratory are $360,000. This would be comprised of $210,000 additional for water yield improvement projects and $150,000 for the related wildlife habitat studies. These additional funds would allow full and efficient use of the new research facilities. They would provide for about 24 additional people.

The research program at Tempe is investigating ways of improving water yields from the chaparral, spruce-fir, and riparian forest zones. The wildfire that burned over the Three-Bar experimental watersheds in the Tonto drainage showed clearly that removal of chaparral would produce greater streamflow, but some means had to be found to prevent the tremendous increase in erosion that followed denudation by wildfire. Strip burning of chaparral following spraying to kill the tops of the bushes, leaves unburned protective strips to prevent erosion. This technique has been successfully applied on an experimental basis and offers promise of being a practical measure. On the nearby Sierra Ancha experimental forest removal of timber from the deep soil moist site areas in the north fork of Workman Creek followed by planting to grass also produced significant increases in streamflow. Other watersheds in the Apache National Forest are being calibrated prior to extension of vegetative treatments for water yield improvement in other forest types. In the past 2 years more than 15 publications and papers have come from this research program.

Other studies at Tempe are aimed at determining how wildlife habitat, particularly for big game, may be improved and maintained in harmony with other uses such as timber production, domestic livestock grazing, and water production. Recent results show that selective cutting in ponderosa pine may improve deer habitat for as long as 15 years following cutting. Also it has been determined that elk prefer natural openings in a ponderosa pine stand over either the forest border or adjacent selectively cut areas, whereas deer used all three habitats about equally.

Additional work to be undertaken would strengthen and permit additional studies designed to improve water yields in the various forest types ranging from chaparral to the mixed conifers, including work on control of phreatophytes. This work covers a broad span of highly important problems of regional and national significance and the additional program planned at this laboratory will permit a balanced and adequate series of studies.

Also, to be undertaken with additional funds is the related work on developing improved wildlife habitat on the watersheds involved. This work would be strengthened to bring it to an adequate level to serve as a principal center for such research in the Southwestern States.

### Utilization Laboratory, Alexandria, La.

Chairman Hayden. It is my understanding that no additional funds have been provided in the budget for staffing of the new utilization Laboratory in Alexandria, La., although this Laboratory is scheduled for completion in early September. The present funds allocated for the utilization project will allow for the employment of only one research man. It is also my understanding that an additional $150,000 for fiscal year 1965 would finance the research of one-half of the capability of this Laboratory. I have been informed by local people that they feel only one-half of the personnel should be hired at this time to insure that properly trained personnel are employed. Can you adequately use these funds at the research center in Alexandria during the coming fiscal year?

Mr. Harper. The Forestry Sciences Laboratory at Alexandria will be completed in September and will then adequately house our research program in forest products utilization, forest fire, forest insects, silviculture, and range management. The fiscal year 1965 budget

provides $50,000 for forest products utilization research—enough to employ one senior scientist and finance some contract research with the forest products industry and a cooperative project at Louisiana State University.

An additional $150,000 for utilization research could be effectively used in fiscal year 1965 to implement the program already planned and developed by the scientist presently employed as the project leader.

This amount would provide for five additional utilization scientists and necessary supporting personnel. We believe fully qualified scientists are available for such a program in fiscal year 1965. The space for utilization research in the new Laboratory at Alexandria was planned to accommodate 10 scientists.

FOREST INSECT RESEARCH

Chairman HAYDEN. It has been brought to my attention by a number of my Louisiana constituents that a serious problem in Louisiana has been the increase of insects which prey upon the southern pine. It is my further understanding that the President's fiscal year 1965 budget request includes a slight increase for forest insect research nationwide; however, do you believe that the Forest Service could use an additional $50,000 for employment of two additional insect research technicians at the Alexandria Research Center?

Mr. HARPER. The problems of protecting southern pine forests against insect pests have increased greatly in recent years. Damages have been excessive. Some progress has been made through research but more effective, cheaper, and more permanent controls are needed if losses are to be reduced to acceptable proportions. The Forest Service would be unable to increase the insect research program at Alexandria out of the program increase carried in the fiscal year 1965 budget because of the critical nature of other insect problems elsewhere in the Nation that need attention also. An additional $50,000 could be used effectively at Alexandria to strengthen research on bark beetles and insects that attack southern pine. The new Laboratory would adequately house this research.

FORESTRY SCIENCES LABORATORY, ATHENS, GA.

Chairman HAYDEN. In fiscal year 1964, the Forest Service received an increase of $250,000 for staffing the Forestry Sciences Laboratory at Athens, Ga., in forest insect and disease research and in forest products utilization studies. What progress has been made in building up these research programs?

Mr. HARPER. The staffing of the Forestry Sciences Laboratory at Athens, Ga., provided for by the $250,000 increase has proceeded satisfactorily and will be accomplished during fiscal year 1964. The funds and personnel, both scientists and supporting staff such as clerks, technicians, and other subprofessionals are as follows for each research activity:

| Research activity | Increase | Staffing added | | |
|---|---|---|---|---|
| | | Scientists | Other | Total |
| Forest insect | $100,000 | 3 | 4 | 7 |
| Forest disease | 60,000 | 3 | 2 | 5 |
| Forest products utilization | 90,000 | 3 | 3 | 6 |
| Total | 250,000 | 9 | 9 | 18 |

1965 BUDGET REQUESTS

Chairman HAYDEN. What additional sums and numbers of workers will be required to bring the programs at the Athens Laboratory to the most effective full working level? Are these increases in this budget? Please indicate how these increases would be used.

Mr. HARPER. This budget does not provide for program increases for the Athens Laboratory. The additional funds and personnel required to bring insect, disease, and forest products utilization research to the most effective working level and to fully utilize the new laboratory facilities at Athens are:

| Research activity | Increase | Additional personnel | |
|---|---|---|---|
| | | Scientists | Other |
| Forest insect | $40,000 | 2 | 1 |
| Forest disease | 60,000 | 1 | 2 |
| Forest products utilization | 50,000 | 2 | 2 |
| Total | 150,000 | 5 | 5 |

These increases for insects, diseases, and utilization research along with what is now available, including timber management research, would bring the staffing at Athens to a strength of 25 scientists and 23 supporting personnel—48 in all and to the full capacity of the present laboratory.

The increases for forest insect and disease research would strengthen the work underway on serious pests that are doing widespread damage to the plantations and natural forest stands. Emphasis would be creased on the study of biological control measures as a substitute for chemical control that sometimes causes a residue hazard. Research would stress elm spanworm and black turpentine and Ips bark beetle controls. Studies would be intensified on fusiform rust disease and soil-borne diseases such as annosus root rot and little leaf.

The utilization research increases would be used to widen the use of Piedmont hardwoods now in good supply but sometimes lacking ready markets. Work would also be done on southern pine utilization problems in the Southeast. The problems of manufacturing, seasoning, fabricating improved products, and other measures to enhance the product and reduce unit cost of manufacture would all be attacked.

FORESTRY RESEARCH IN OREGON

Chairman HAYDEN. Will you place in the record a statement describing briefly the forestry research the Forest Service has underway that deals with timber, watershed, range, and wildlife habitat manage-

ment problems in northeastern Oregon? Show where the work is being done and what additional finances may be needed over those carried in the fiscal year 1965 budget. Will you do that, please.

Mr. CLIFF. We will.

(The information referred to follows:)

RESEARCH PROGRAMS

The Forest Service research program dealing with timber management problems in northeastern Oregon is centered at Bend, Oreg., where research is underway on problems of regenerating, improving, and harvesting lodgepole pine, ponderosa pine, and the mixed coniferous forests of the Blue Mountains and adjacent areas.

Although the watershed research is headquartered at Wenatchee, Wash., the findings apply to or are adapted to the conditions found in northeastern Oregon. Expansion of the program in the future will more adequately cover such necessary interpolations and modifications. The research involves two major aspects: (1) finding ways to stabilize soil and prevent erosion on forest and adjacent ranges while the areas are being used for timber or range forage production, wildlife habitat, or recreation, and (2) to learn how water yield may be improved through modification of vegetation.

Range management and wildlife habitat research, centered at La Grande, Oreg., deals with methods to improve and manage livestock ranges to better their condition and increase carrying capacity. Also included is research on establishing game browse and learning how to manage food and cover for deer, elk, and other forms of wildlife.

Present finances available for these programs in the fiscal year 1965 budget are as follows:

| | |
|---|---|
| Timber management research, Bend, Oreg | $66,000 |
| Watershed management research, Wenatchee, Wash | 89,000 |
| Range and wildlife habitat reserch, La Grande, Oreg | 150,000 |

Additional finances that could be used effectively when the budget situation permits are:

| | |
|---|---|
| Bend, Oreg | $100,000 |
| Wenatchee, Wash | 130,000 |

Newly constructed laboratories are available at both Bend and Wenatchee to accommodate the program increases indicated.

At La Grande, for range and wildlife habitat research the Forest Service does not have laboratory facilities adequate for the present program. A facility for this research is included in the 10-year program at La Grande and is estimated to cost $350,000.

MAPLE SUGAR RESEARCH

Chairman HAYDEN. Senator Aiken has asked me to inquire of you concerning maple sugar research. His first question is, What has been done to date by the researchers in Vermont and how might their efforts be implemented?

Mr. HARPER. Our research program that deals with problems of maple sap production is centered at Burlington, Vt. This program, carried on in cooperation with the University of Vermont, serves not only the maple sap producers of Vermont but those from Maine across to the Lake States. We have made good progress on some phases of important problems. For example, we have identified individual trees that yield a sap of unusually high sugar content. We have learned some of the factors in the tree and about its environment that seem to control or affect sap flow. We have laid some of the groundwork for techniques of tree breeding and propagation so that a superior race of high yielders can be established. This work, of course, is pointed to lowering unit production costs. We have also made some progress in working out the tree nursery and planting techniques for sugar maple.

These research accomplishments are noteworthy considering the small effort we have been able to put into the program. More work needs to be done on techniques and systems of sap extraction and collection to minimize labor costs per gallon of syrup produced. Tap hole preparation methods and studies of more effective techniques for mechanical tapping should be made. The research on developing high-yielding races of trees needs to be speeded up. Then there are many other problems of improving the culture and management of sugar bush, improving marketing systems, and so on, that need attention.

Chairman HAYDEN. Is the present maple production research staff at the University of Vermont adequate to do the job that needs to be done?

FOREST SERVICE RESEARCH STAFF AT BURLINGTON, VT.

Mr. HARPER. The Forest Service research staff at Burlington is making progress on some of the problems as I have indicated. We cannot include in our program work on a number of important aspects. Progress is slow on others. So, I would have to say that the present staff is not able to do an adequate job on what needs to be done.

Chairman HAYDEN. Would a national maple center, along the lines recommended by the Vermont Maple Industry Council, be effective?

VERMONT MAPLE INDUSTRY COUNCIL

Mr. HARPER. The Vermont Maple Industry Council sent us a copy of their recommendations some time ago and we have worked with them in the past to gain a better understanding of the problems facing the maple sirup producers. Our program at Burlington does represent what the council refers to as a "national center" inasmuch as it is the place where all our research on maple sirup production is concentrated. We agree that this is an effective way to organize the research and get the most values from the research expenditures.

Chairman HAYDEN. Would $180,000 as suggested by the industry council provide adequate staffing for broadened research so as to reach full capability in fiscal year 1965?

Mr. HARPER. Yes, an increase of $180,000 over the amount carried in the fiscal year 1965 budget would provide for adequate staffing for a broadened research program if such an increase were fiscally feasible. This would provide for accelerated research on problems now being studied and work on other important phases not in the current program.

NAVAL STORES AND TIMBER PRODUCTION LABORATORY AT OLUSTEE, FLA.

Chairman HAYDEN. The Naval Stores and Timber Production Laboratory at Olustee, Fla., has an excellent research program underway which has been finding ways to reduce naval stores production costs. If this program were expanded, could faster progress be made in solving production problems? What would a reasonable expansion require?

Mr. HARPER. You are correct, Mr. Chairman, in pointing out that the naval stores production research program at Olustee, Fla, has been helpful in reducing the production costs for pine gum. Chemical formulations have been developed which appear to extend the period of gum flow from 2 to 3 weeks. Modifications of traditional tech-

niques of applying the turpentine streak to the tree have been shown to speed up the operation, give slightly increased gum yields, and permit improved timber utilization. A new, noncorrosive substitute for sulfuric acid, which is highly adaptable to slash pine plantations, has greatly improved the quality of the gum in exploratory studies. These new developments represent the most promising breakthrough for the gum naval stores industry in three decades.

GUM TREE RESEARCH

When the financial situation permits an expansion of the naval stores research program, we think faster progress would result. Some of the more promising leads we have recently uncovered need to be confirmed through more exhaustive and thorough trials and evaluations before the development of additional laborsaving techniques can be assured and passed along to farmers and other gum producers. We need to do much more research on how gum is formed in the tree, how it is chemically transformed, and how it moves out of the tree. Such information will help us avoid costly trial and error approaches in the research.

We estimate that an increase of $70,000 over the funds carried in the fiscal year 1965 budget would be a feasible addition to the program when such an amount could be made available.

FOREST SERVICE RESEARCH LABORATORY NEAR FORT MYERS, FLA.

Chairman HAYDEN. It is our understanding that omitted from the budget were funds requested by the Department for a proposed U.S. Forest Service research laboratory to be located near Fort Myers, Fla.

If such funds are not appropriated, will the forestry program be seriously crippled?

Mr. HARPER. Mr. Chairman, you are correct that funds are not included in this budget for the laboratory at Fort Myers. Within the overall financial situation it was not possible for the Department to include this item, which would have required $200,000, in the fiscal year 1965 budget request. Without these funds, of course, we will not be able to build a laboratory at Fort Myers. The program there does need a laboratory facility. Scientists there do not have adequate space, instruments, and other facilities they need.

WILDLIFE HABITAT RESEARCH IN MIDWESTERN STATES

Chairman HAYDEN. Senators Symington and Long have written to me as chairman of the subcommittee asking that funds be added to the Forest Service budget to undertake cooperative wildlife habitat research in Missouri and other Midwestern States. Their letter will be printed in the record.

(The letter referred to follows:)

U.S. SENATE,
*Washington, D.C., February 26, 1964.*

Senator CARL HAYDEN,
*Chairman, Subcommittee on Appropriations for the Department of Interior and Related Agencies, U.S. Senate, Washington, D.C.*

DEAR MR. CHAIRMAN: You will recall that last year a request for appropriations was made to your committee to permit the U.S. Forest Service to undertake cooperative forest wildlife habitat research in Missouri and other Midwestern States.

We are taking this opportunity to again stress the need to make funds available for this most worthwhile project. Only through research will we be able to establish sound management of timber and game resources in the Central States. This area contains approximately 100 million acres of oak-hickory forest which is inhabited by a wide variety of upland game birds and animals. The increasing use of these resources makes it imperative that research be undertaken so that sound management programs will be developed for both timber and wildlife to meet present demands on them as well as their future use.

We therefore strongly urge the committee's favorable consideration of this request to provide the necessary funds to undertake cooperative forest wildlife habitat research by the U.S. Forest Service in Missouri and other Midwestern States. In addition, we respectfully request this program be headquartered in Missouri. The Missouri Conservation Commission, long interested in this field, has both the personnel and facilities to succeesfully carry forward this project.

Sincerely,

STUART SYMINGTON.
EDWARD V. LONG.

Chairman HAYDEN. Also at this point I will include a statement on this same subject by William E. Towell, director of the Missouri Conservation Commission.

(The statement referred to follows:)

NECESSITY FOR THE RESEARCH PROGRAM

Mr. Hayden and members of the Senate Subcommittee on Appropriations for the Department of the Interior and related agencies, I am Director William E. Towell of the Missouri Conservation Commission, and my purpose in appearing before you is to recommend that you provide additional funds for the U.S. Forest Service so that it may undertake cooperative forest wildlife habitat research in Missouri and other Midwestern States.

It was my privilege to appear before this committee last year in support of this urgently needed research project. No action was taken, however; thus, I have returned to urge you once more to consider the merits of this case. I respectfully submit that delay in financing this worthy project could be false economy in the long run. The need for this research already exists and will continue to mount. As the President recently stated, "We must keep our air clean, our water pure, our forests green, our birdlife abundant, and our wildlife plentiful. * * * We must also be sure that through wise use and foreseeing policies that the enjoyment of these endowments is opened to all the people * * *."

Our Central States contain 100 million acres of oak-hickory forests. These combined hardwoods form the dominant forest type in Missouri, Iowa, Illinois, Indiana, Ohio, Kentucky, and other States adjacent to this central region. These oak-hickory forests supply food, cover, and breeding grounds for many upland game birds and animals—they are home for a good share of our wildlife in the Eastern and Central United States.

There are many gunners in this great geographical center, where the 1960 National Survey of Fishing and Hunting showed 4,694,000 persons over 12 years of age who hunt. This is 28 percent of all gunners in the United States. From this same survey, the average annual expenditure of a gunner in 1960 was $79.34, a total of $375 million spent each year on hunting activities in the central region. The hunting members are still increasing. In Missouri, for example, our deer hunters increased from 30,000 in 1951 to 102,500 in 1962, and the take increased from 5,500 in 1951 to 16,500 in 1962. Much of the hunting and the game had to come from our forests, which are more and more intensively managed for timber.

More than a million deer, 25,000 wild turkey, untold numbers of squirrel, quail, and grouse now live in the Midwest oak-hickory forests. But these forests can support many times these wildlife numbers if game and habitat are skillfully manipulated. In these timbered areas lie space, the badly needed, much-demanded "room for freedom." But it cannot properly provide wider opportunities for sportsmen without sound, intelligent—and sometimes expensive—game management.

Whether game will be abundant or scarce, and the degree of satisfaction of both hunter and timber group, depend on how this great oak-hickory forest of the Central United States is managed. And only research can furnish sound knowledge of relations between game populations and the timber resource.

Little research has been done on how to coordinate timber-wildlife production, yet the demand for products of this forest is mounting, while the land available is diminishing.

Research findings we now have indicate a tremendous opportunity to make our forests produce more game without reducing the timber potential. We have considerable evidence that both timber and game management can be adjusted to meet the demands, but we have not had the detailed research programs necessary to provide practical long-term guidelines. We need forest management which permits maximum production of wildlife, timber, watershed control, and other basic resources. We want to know how heavy a stand to leave for timber and game, how thinning, clear cutting, prescribed burning, and other measures affect wildlife. We need to know how to modify present practices to obtain the best habitat for game animals and birds without harming timber production; we need basic information on the ecology, physiology, and production of food plants and seeds.

To complement the proposed program of the U.S. Forest Service in wildlife habitat research, the Missouri Conservation Commission will provide its research facilities and personnel toward the goal of forest habitat management. Right now my State's research staff is studying forest game birds and mammals, with principal attention directed toward the game species, their current and long-term production and habitat needs. If the Forest Service is furnished funds to conduct wildlife habitat research in Missouri and other Central States, we pledge eager cooperation.

In fact, for many years we have cooperated with the Forest Service research program of the Central States Forest Experiment Station. We assist in financing fire research and join in timber production research conducted by the Forest Service. We have a long, proud history of productive relationship between the Missouri Conservation Commission and the U.S. Forest Service—and we'd like very much to extend this cooperative work to research in wildlife habitat.

Such research done in Missouri would be of equal value to other States having similar conditions: the Ozarks of Arkansas and southern Illinois, the hills of Indiana and Ohio, the mountains of Kentucky. Since Missouri has a strong wildlife research and management program, with good personnel, equipment and lands, and since all of this would be available to a cooperative research program with the Forest Service, we recommend this program be headquartered in Missouri.

Thus, for your consideration, I recommend that you add for this purpose a minimum of $160,000 to Forest Service research programs for next year. This would enable the Central States Forest Experimental Station to conduct wildlife habitat research in Missouri, studies of great value to every one of the Central States.

The $160,000 requested for forest wildlife habitat research in the Central States region would provide for the salaries of six scientists, as well as student trainees, nonprofessional assistants, scientific equipment, costs of conducting laboratory, and field research and other essential services.

Approximately three-fourths of the $160,000 requested would be used for research to determine how to obtain the optimum forest wildlife habitat production under a variety of environmental conditions. The broad environmental factors that influence the production of wildlife food and cover plants include length of growing season, temperature extremes, pattern and amount of precipitation, soil and topography, and existing vegetation. The influence of these factors upon the growth of native and introduced plants would be determined. Also, research would be done to find practical ways to increase wildlife carrying capacity, improve distribution of wildlife, restore game food plants on depleted areas, and replace less valuable wildlife plants with more productive species.

The remaining one-fourth, or $40,000, of the funds needed, would be used to determine forest management systems permitting optimum yields of both timber and wildlife habitat in hardwood forests. This would involve research to develop: (1) Timber cutting practices compatible with wildlife food and cover production; (2) timing and intensity of timber stand improvement measures to most nearly meet the requirements of wood and wildlife production; (3) method of reproducing timber stands in harmony with wildlife populations; and (4) ways of making other related adjustments in timber growing and wildlife management practices to their mutual benefit.

The Missouri Conservation Commission will continue its wildlife management activities on the national forests of Missouri. In the current fiscal year $40,875 is budgeted for this purpose. The principal activity of the conservation commission in this cooperative effort will be work with wildlife itself, while efforts of the

U.S. Forest Service will be directed toward the habitat as it provides food and cover for game animals.

I appreciate this time on your crowded schedule, gentlemen, and hope that you can provide the funds we have recommended, as well as others needed to strengthen forestry research across the Nation.

OPPORTUNITIES OF IMPROVING WILDLIFE HABITAT

Chairman HAYDEN. Will you examine these documents and provide for the record a statement of your ability to use an additional $160,000, indicating just what you would do with it, and where it would be expended?

Mr. CLIFF. We will do that, sir.

(The statement referred to follows:)

"The documents referred to correctly describe the forest situation in Missouri, Iowa, and Illinois—and other Midwestern States—with respect to the opportunities of improving wildlife habitat and the game, birds, and all other forms of wildlife the forest supports. The Forest Service has in its short-term plans program increases of at least $160,000 when the fiscal situation is such that funds can be included in the budget for a comprehensive and practical wildlife habitat research program. We have plans for effective use of this amount.

The 100 million acres of mixed hardwood forests of the Central States basically contain most of the food and cover requirements for a large variety of birds and animals including deer, squirrel, turkey, quail, and grouse. The number of hunters that harvest every year a portion of the wildlife crop and who make up an important and growing recreational group, contribute substantially to rural areas where they hunt and recreate. In fact, the economic potential of hunting, based on abundant wildlife, and the creation of local employment in service activities has barely been realized.

There are significant problems yet to be solved, however, before wildlife numbers increase to the capacity of the forest land to support them. Past timber cutting practices have been detrimental to some trees that supply food and habitat required. Research would be undertaken to determine the best ways to restore habitat. Studies elsewhere have shown that when this is done, game animals and birds multiply with astonishing rapidity. Thus, the research contemplated would lay the basis for additional hunting opportunity and all of the economic benefits to the rural economy that accrue from increased recreational activities.

The program, to be centered at Columbia, Mo., would develop wildlife habitat management practices that would apply widely throughout adjacent States. Laboratory facilities are available for the research.

FEBRUARY 28, 1964.

FOREST RESEARCH

Chairman HAYDEN. Senator Bartlett has handed me a most interesting letter received by him discussing the forest research office in the fiscal 1965 budget. This letter is written by an old friend of his, Hon. B. Frank Heintzleman, who, before becoming Governor of Alaska in territorial days, served for many years as regional forester.

The strong support he gives to the increased funds for forest research is most persuasive and should, the Senator feels, be made a part of the hearing record.

(The letter referred to follows:)

WASHINGTON, D.C., *February 20, 1964.*

Hon. E. L. BARTLETT,
*U.S. Senate, Washington, D.C.*

DEAR SENATOR BARTLETT: The recommended increases in certain forest research items contained in the President's budget for 1965 deal with features of great importance to improved management of the forests of our country.

Of special interest to Alaskans is the provision for studies of better means to overcome the tendency of soil on the steep hillsides of southeastern Alaska to slide

following logging operations which support our extension timber-using industries. We are, of course, also interested in research which could be expected to supply answers to the control of forest insect infestations and tree diseases which now cut severely into the quantity and value of our timber crops.

Having spent many years in the administration of the national forests of Alaska I have a good knowledge of the seriousness of the above problems and am confident that the answers can be found in expanded research.

I hope you can find time to give special attention to these research items when the appropriations bill containing them reaches the Senate.

Cordially,

(Signed) B. FRANK HEINTZLEMAN.

### AERIAL LOGGING

Chairman HAYDEN. I seem to note in your justifications this year a greater enthusiasm for the possibilities of logging by helicopter. Have your research efforts along this line progressed to a point where it appears that this will be an economical and practical method of logging in difficult to reach areas?

Mr. CLIFF. Dr. Harper will answer that. I would first like to comment, myself, that logging with helicopters shows some promise, especially in areas that are rough and that are difficult to get into by other means.

### BALLOON USE

There are some problems, and one of them is getting the expense down so that it is competitive. We are now engaged in experimenting with the use of balloons to increase the efficiency of getting logs out of rough terrain at less cost and less damage to the ground and other vegetation.

This, likewise, shows a great deal of promise. But Dr. Harper can elaborate on that.

Dr. HARPER. I think that is a very good story that Chief Cliff has given you. We are working with really two concepts shown here on this chart to enable us to do a better job to preserve watershed values and at the same time to reduce costs of logging.

### HELICOPTER USE

One of them is by helicopter and the other is by balloon. I think maybe the helicopter may have more limited opportunities than the balloon. We have carried the research on helicopters to the point where we feel that for some situations, as for short hauls such as for stranded logs and particularly those stranded along streamways, that this method would be a very efficient and cheap way of transporting logs.

One of the new developments for the helicopter has been this hook here that works automatically from the machine with less danger to the logging crew below, which was one of our big problems in the past. Also, it speeds up the operation, and this lowers the cost of helicopter use.

Now, here is even a newer concept about which there is great enthusiasm in the lumber industry because it may develop into the cheapest way of logging.

Essentially what this does is elaborate on the old system of cable logging by using the lifting power of a balloon. There have been new developments in fabrics of balloons recently that permits what we think will be a feasible operation.

FEASIBILITY STUDY FOR BALLOON USE

We now have some feasibility studies underway on this. Some of our work is being done through contract with Goodyear Aerospace Corp., which has made new developments in the balloon. I should say that the armed services use balloons now for quite a few jobs, and there is no reason why we could not do the same thing for forestry.

Senator MUNDT. Has it been tried in the field, or is this still some artist's concept?

Dr. HARPER. It has been demonstrated in Canada. It was not really a study. They just wanted to see how it would work. We have not yet put it on a pilot scale basis, because we want to finish all of the theoretical calculations first.

We could waste money by trying it out in the field before we have discovered and corrected the limitations it may have through calculations and through what we call feasibility studies.

PILOT DEMONSTRATION

Senator MUNDT. Has Goodyear demonstrated their willingness to give you a pilot demonstration for free, looking forward to building up a business if it works?

Dr. HARPER. It might come later. Right at the present time we have had a number of discussions with them, and they feel very strongly, as we do, that it is too early yet to try to put on a pilot operation until we know more about the size of balloons required, how you would hook them on, what it would cost, how much of a haul could you get, could you go back a mile with cables, or 2 miles, or half a mile, and that sort of thing.

BALLOON USE CONCEPT

Senator MUNDT. Have they gone far enough to indicate how they are going to control the direction in which the balloon flies? You can steer a helicopter. Suppose you want to move the log against the wind? How are you going to do that against the wind with a free balloon?

Dr. HARPER. The principle is rather simple. You attach one end of the cable system to something solid, say at the top of a mountain. You have a winch down here and you can pull the balloon back and forth on a cable.

Mr. CLIFF. The balloon lifts the weight of the log off the ground. You can log that way, the theory is, with lighter equipment.

Senator MUNDT. It lifts it off the ground and you hook it on a cable?

Mr. CLIFF. You just partially lift it so as to reduce the drag against the line. And the theory is, the log is less damaged with lighter equipment and can be hauled from greater distances and this balloon remains attached to the cable so you can control the movement of the balloon by the movement of the cable.

Dr. HAPER. It is a new concept, as we say. It was tried out briefly in Sweden about 2 years ago with an old balloon. They found a lot of problems. But since that time there have been some new developments in fabrics, shapes, and sizes of balloons that should make them much more practical.

FOREST SURVEY

Chairman HAYDEN. Your forest survey activity provides the basis for keeping track of the timber situation. You have requested $150,000 increase in the fiscal year 1965 budget to accelerate the forest survey. What will this increase accomplish and how much money will be required to bring this activity to an adequate schedule of forest resurveys within the amounts authorized for this purpose by legislation? You may supply this information for the record.

Mr. CLIFF. We will be glad to do that, Senator.

(The information referred to follows:)

STATUS OF THE PROGRAM

With the funds now available, our most recent estimate for the forest survey is about 43 million acres of commercial forest land each year. This includes both field work to collect the basic data and the compilation of State and local reports describing the forest resources, the rate of timber growth and rate of removal including a detailed explanation of the timber supply situation, and timber management needs. Current progress is somewhat less than 80 percent of that required; namely, 55 million acres of commercial forest land a year which the Forest Service together with State and industry cooperators believe to be essential in order to maintain an adequate schedule of resurveys.

The budget increase of $150,000 for fiscal year 1965 would raise survey progress to approximately 48 million acres a year, still materially below the 55 million acres required annually but enough to reverse the steady downward trend over the last several years resulting from steadily rising costs.

We believe that acceleration of the forest survey is highly important to measure the rapid changes taking place in the Nation's timber resources, to provide public agencies with guides for forestry programs, and to provide industry with basic facts on raw materials supplies available for new or expanded wood-using plants. Moreover, the forest survey provides essential data on the available timber resources so important to the Department's rural areas development program.

An increase of $200,000 more than the budget estimate of fiscal year 1965 could be effectively used. This would represent a total increase of $350,000 over the 1964 level of financing, and would raise the rate of progress to an estimated 53 million acres annually. The need for further increases to achieve the survey goal of 55 million acres annually could be better appraised at a later date based on experience in the next year or two. The funds authorized for resurveys, the amounts appropriated, and the areas surveyed are shown below for 1949 and for 1964 and 1965.

*Forest survey funds and progress*

| Fiscal year | Funds authorized for resurveys | Survey funds available | | Required to keep fully up to date | Actual |
|---|---|---|---|---|---|
| | | Total | Percent of resurvey funds authorized | | |
| | *Thousands* | *Thousands* | *Percent* | *Million acres* | *Million acres* |
| 1949 | $1,500 | $824 | 54.9 | 55 | 53 |
| 1964 | 2,500 | 1,676 | 67.0 | 55 | 43 |
| 1965 | 2,500 | [1] 1,854 | 74.2 | 55 | [2] 48 |

[1] Included in the fiscal year 1965 budget.
[2] Estimated.

RESEARCH CONSTRUCTION

Chairman HAYDEN. Last year instead of providing construction money for forest research laboratories, the Congress provided planning funds. Money was made available for planning five laboratories. What is the present status of the planning? Generally, would it be feasible to construct these laboratories during the next year?

Mr. CLIFF. Dr. Harper will respond to that.

Dr. HARPER. Mr. Chairman, the status of the projects is that all of them have had contracts awarded for the specifications and drawings, except the one at Morgantown, W. Va., which, I understand a meeting has been set next week to award the contract.

The scheduled dates of completion of the planning for each of these laboratories are as follows: Sewanee, Tenn., March 1964. That is next month.

Houghton, Mich., the date for that will be October 1964.

Missoula, Mont., the date for that is October 1964.

Morgantown, W. Va., the date for that is November 1964.

Fort Collins, Colo., the date for that is December 1964.

In other words, all of these five laboratories would have plans and specifications ready during the first part of the fiscal year. It would be feasible to award contracts for construction of all of them during the next fiscal year, 1965, if funds were available for this purpose. Such funds are not in the 1965 budget estimate.

CONSTRUCTION AT ALEXANDRIA, LA.

Chairman HAYDEN. Money was appropriated last year for a second increment on the Laboratory at Alexandria, La. Has a contract for that Laboratory been let yet?

Dr. HARPER. Yes, sir; it has. The construction is going along on schedule. That project should be completed by September of this year.

FOREST SCIENCES LABORATORY, MISSOULA, MONT.

Chairman HAYDEN. Senator Mansfield has addressed a letter to me urging appropriation of necessary funds to construct the Forestry Sciences Laboratory in Missoula, Mont. Last year Congress approved $28,000 to prepare plans for this Laboratory. The Senator's letter and the attachment thereto will be placed in the record.

(The letter referred to follows:)

U.S. SENATE,
OFFICE OF THE MAJORITY LEADER,
*Washington, D.C., February 21, 1964.*

Hon. CARL HAYDEN,
*Chairman, Appropriations Committee,*
*U.S. Senate, Washington, D.C.*

DEAR MR. CHAIRMAN: Enclosed is a detailed letter I have received from Arnold W. Bolle, dean of the School of Forestry at Montana State University in Missoula, Mont., discussing two items of particular interest to the Montana congressional delegation.

As you may recall, the Congress appropriated $28,000 to begin planning and architectural work on the new forestry research laboratory which is proposed for Montana State University campus. This Forest Service research facility would be a major step forward in the expanding cooperative research program between the Federal Government and the university. It is my understanding that the construction of this new building will require an appropriation of some $400,000. I was indeed sorry to learn that the administration's budget request did not include this item. I do hope that the Forest Service officials will be questioned on this project and I would hope that the Congress will see fit to appropriate the necessary funds for the construction of this important research facility in fiscal year 1965.

Also I thought you and the other members of the committee might appreciate having Dr. Bolle's general discussion of forest research. Dr. Bolle is quite familiar with these programs and his views are generally held in high regard.

With best personal wishes, I am,

Sincerely yours,

MIKE MANSFIELD.

MONTANA STATE UNIVERSITY,
*Missoula, Mont., February 17, 1964.*

Hon. MIKE MANSFIELD,
*U.S. Senate,*
*Washington, D.C.*

DEAR MIKE: I understand that the appropriation hearings for Interior and Forestry are being held this week. Two items of special interest to us are, (1) the proposed forestry research laboratory on the Montana State University campus, and, (2) the amount of the appropriation for forestry research in Montana.

The proposed U.S. Forest Service Research Laboratory will be a great boon to both the university and the Forest Service. We at the university are moving into a rapidly expanding research program in forestry with stronger support from the State and industry as well as new Federal matching funds under the McIntyre-Stennis Act. We are coordinating our program with that of the Forest Service in all fields and we look to this new laboratory as the focal point for such coordination. The Forest Service will have available to it the full facilities of the university and the staff of the university can work with Forest Service scientists in Service facilities. We hope that funds for the construction of this laboratory can be made available for the next fiscal year. From a selfish standpoint, we recognize that the authorization of this laboratory will give impetus to the construction of a new building for the school of forestry in the near future.

The research program of the U.S. Forest Service in Montana needs greater financial support. We are lagging in knowledge of spruce reproduction, management of our important timber species, forest products, marketing and fire control. In fire control for example, we have an outstanding laboratory, thanks to your efforts, but we have not been able to fully capitalize on the facilities because there have not been sufficient funds to fully staff the laboratory or provide the equipment needed. In all these fields we at the university are closely cooperating with the Forest Service and coordinating our work with theirs. This teamwork is paying off in better research results as well as providing better opportunities for our students. The Forest Service research work is of considerable importance to our program. Many of our graduate students work on Forest Service research projects and this work is a great help in keeping them going. A number of our undergraduates also find work during the summers as well as part-time during the school year on Forest Service research projects. This is a mutually advantageous arrangement. We also do some contract research work on Forest Service projects. We regard the Forest Service research program as a great adjunct to our own.

Another item of direct concern to us in forestry research is the amount of the proposed appropriation under the McIntyre-Stennis Act. This is in the Department of Agriculture appropriations, not Interior and Forestry. As you know, the McIntyre-Stennis Act passed in October 1962 received its first appropriation for $1 million this year. It was anticipated that the amount would be increased to $5 million for the next fiscal year. It now appears reasonable that the amount should be increased to at least $3 million to help provide the funds for research needs. This valuable piece of legislation was strongly supported by industries, agencies, and universities in Montana as well as nationally. It is the basis for increasing the State appropriation for forestry research as well as financial support from industry. Without stronger national support we will not be able to undertake the programs we have proposed. Support from the State and industry may also be reduced. By law the upper limit of funds for this program is about one-half the appropriation for Federal forestry research or about $12 million. I will try and give you additional information on the value of this program in Montana before the hearings are held.

As you know, almost all forestry research in Montana is conducted by the U.S. Forest Service and the university. This pattern is true nationally. While individual industries do carry on some research and contract with us and other schools for some research, they generally have to rely on the Federal Government and the universities for this research. Part of the problem lies in the wide dispersion of the industry into many plants most of them relatively small and not financially able to afford large research departments. Only a few of the largest companies are engaged in any significant amount of research and almost none of these are represented in Montana. While we cannot hope to resolve all of industries' problems through research, the only real hope for working toward long-run solutions lies in research.

We are all sympathetic with the need for economy in the Federal budget. In the face of the proposed cutbacks in this budget many needs of individual States and groups will not be met. However, even without increasing the budget

there are sure to be many changes made. In the course of these changes I hope that due consideration will be given to needs such as ours. The total money involved is relatively small but it is of intense interest to us. We feel that in each case the appropriations requested are in the form of investments which will be repaid many times over in the future.

If I can provide you with any additional information in regard to these items, I will be pleased to do so.

Sincerely,

ARNOLD W. BOLLE, *Dean.*

CONSTRUCTION OF THE LABORATORY

Chairman HAYDEN. What is the outlook for completion of these plans and what additional funds will be needed to construct the laboratory? Include in your reply a brief description of the program to be housed in this facility. Will you do that for the record?

Dr. HARPER. Yes, sir.

(The information referred to follows:)

STATUS OF THE PROGRAM

We anticipate that architectural and engineering plans and specifications will be finished by late fall or early winter, well ahead of the spring construction season at Missoula. We estimate that $372,000 will be needed to construct the laboratory.

The laboratory will accommodate research on three problems, (1) growth and culture of western larch and Englemann spruce, (2) improved utilization of northern Rocky Mountain timber species, and (3) management of wildlife habitat. All of these problems have an important bearing on the economy and well-being of the region where timber-based industry and recreation, including hunting and fishing are two of the greatest sources of economic growth.

The program in timber management research would work to improve growth through better cultural measures, reduce delays in regeneration of cutover areas, and solve problems of maintaining preferred species. All of these measures would reduce unit production costs and make national forest and private timber operations more profitable.

Forest products utilization research would attack problems of air seasoning to make lumber a better, more salable product; problems to improve utilization of transmission poles; and otherwise develop local adaptations of improved utilization practices of benefit to all aspects of the timber-based industry. The utilization studied would be carried out in cooperation with the Forest Products Laboratory at Madison, Wis.

Wildlife habitat problems to be worked on include ways to increase game food and cover and to insure that timber cutting or other forest land use practices properly integrate the requirements of wildlife. Winter range for elk and deer is especially critical in Idaho and Montana. Ways will be sought to extend this food supply and thus alleviate game management problems as well as the impact of game on the timber and water resource.

The Forestry Sciences Laboratory at Missoula would be built on a site made available by Montana State University.

FOREST SERVICE LABORATORY AT ST. PAUL, MINN.

Chairman HAYDEN. Does the Forest Service budget provide for completion of the laboratory at St. Paul, including the fixtures and equipment? What amount will be needed for this item?

Mr. HARPER. No, there are still a few items which are needed to make this new laboratory fully operational. Our estimate is that $150,000 will be required. This will provide for the purchase and installation of laboratory fixtures, scientific equipment and the completion of the air ventilation system. Now that the laboratory building is being occupied and our scientists are ready to use the new facility, it is desirable that these items be available shortly. Later on we will need

greenhouses and other auxiliary facilities estimated to cost approximately $300,000.

### Marketing Program at Duluth, Minn.

Chairman Hayden. I understand a small forest products marketing program is underway at Duluth, Minn. Could you tell me what the short-term plans are for this program, and what funds are needed for the program and the facilities?

Mr. Harper. Yes, we do have a forest products marketing program underway at Duluth. We have a small staff of two located in temporary offices on the campus of the University of Minnesota at Duluth. The research there involves studies of timber markets and possibilities for increasing the use of local timber. We have a rapidly increasing supply of timber in the northern Lake States and it is important that we find ways to market and use this timber. In fact, greater use of this timber resource is one way which the natural resource in this distressed area can be a significant factor in overcoming the critical unemployment and contribute substantially to economic growth of this forest region.

Our short-term plans for this project are to develop at Duluth a center for timber marketing research to serve the area. We plan to place emphasis on market studies for the large supply of aspen and the second growth hardwoods. We estimate that an increase of $200,000 would be needed when the overall financial situation is such that this additional amount could be budgeted. Because of the growing scarcity of space on the university campus and the need for specialized facilities for marketing research, we have in our plans a marketing laboratory which we estimate will cost $375,000.

### Spruce Budworm Insect Problem

Chairman Hayden. What are you doing about the spruce budworm insect problem in northeastern Minnesota, and what do you think we should be doing?

Mr. Harper. We have had a spruce budworm epidemic in northeastern Minnesota for about 10 years. This epidemic has killed a substantial volume of balsam fir timber and has extended over some million acres of merchantable timber. It is continuing.

Since 1956 we have had a small research team studying this insect and how to control it. Certain phases of these studies have been completed. We now know the life history and feeding habits, we know how the insect moves from one area to another and we know that it can be controlled for limited periods by the aerial application of DDT. We have a study underway now which indicates silvicultural control is possible in some stands.

In the long range though the most promising control may be by biological methods. It is in this area we believe it is desirable to intensify the spruce budworm research program. We would like to see studies made of parasites which might be used to keep down such infestations. This might eliminate the use of insecticides in future control operations.

RESEARCH PROGRAM AT LA GRANDE, OREG.

Chairman HAYDEN. What are the Forest Service plans for the research program at La Grande, Oreg., as they relate to research facilities and development of the research work?

Mr. HARPER. The Forest Service research program at La Grande deals with two important problems (1) improving the grazing management of forest and related ranges and (2) improving and managing wildlife habitat. Research on both problems is underway. We have approximately $150,000 included in the fiscal year 1965 budget for the work, the same amount as fiscal year 1964. Our short-term plans call for at least doubling this research when we are able to budget for it. Our greatest need for the immediate future is a laboratory to house the current and planned program. This we also plan to include in future budgets when the overall financial situation permits.

Chairman HAYDEN. Senator Morse is particularly interested in this. Congressman Ullman also has written to me about this, and I will place his letter in the record.

(The letter referred to follows:)

HOUSE OF REPRESENTATIVES,
*Washington, D.C., February 27, 1964.*

Hon. CARL HAYDEN,
*U.S. Senate, Washington, D.C.*

DEAR SENATOR HAYDEN: In the Interior Appropriations Subcommittee hearings with the Forest Service tomorrow morning, I am hopeful that there will be some discussion of the badly needed research laboratory facility for livestock range and wildlife habitat.

While not in the budget, I am reliably informed that this important project is classified in the highest priority category by the Forest Service. The amount of $28,000 is needed this year for architectural design and construction planning.

I would deeply appreciate any effort which might be made to have that amount for the La Grande laboratory included in this year's appropriations bill. Anything which you could do would be a personal favor to me.

Sincerely,

AL ULLMAN,
*Member of Congress.*

SILVICULTURE LABORATORY AT SEWANEE, TENN.

Chairman HAYDEN. Senator Gore has asked the subcommittee to provide funds to construct a silviculture laboratory at the University of the South at Sewanee, Tenn. His letter will be printed in the record.

(The letter referred to follows:)

U.S. SENATE,
COMMITTEE ON FOREIGN RELATIONS,
*February 18, 1964.*

Hon. CARL HAYDEN,
*Chairman, Interior Subcommittee, Appropriations Committee, Senate Office Building, Washington, D.C.*

DEAR MR. CHAIRMAN: Enclosed is a statement concerning the need for construction of a silviculture research laboratory building at the University of the South at Sewanee, Tenn. I hope funds for construction of this facility can be included in the 1965 appropriation bill.

Sincerely yours,

ALBERT GORE.

THE SEWANEE FOREST MANAGEMENT RESEARCH PROJECT

Headquarters for this U.S. Forest Service project are at Sewanee, Tenn., on the campus of the University of the South, a major cooperator. Major experimental areas are the 10,000 acres of university land surrounding Sewanee and the 2,600-acre Flat Top Experimental Forest near Birmingham, Ala. Cooperative studies are also installed on industry and other private lands, State and National forests, and other public lands in central Tennessee and northern Alabama.

The Sewanee project is responsible for silvicultural research on commercially important pines and hardwoods of the Cumberland Plateau and Highland Rim. These highlands extend across more than 18 million acres of central Tennessee and north Alabama, and nearly 60 percent, or about 10¾ million acres, are commercial forest land. The plateau is the more heavily forested with three-quarters of the Tennessee and two-thirds of the Alabama portions in woodland. Forest lands are a major economic resource of this great region and contribute substantially to its economy. Recent forest survey data show gratifying improvements in Tennessee forests, but the land is still producing but one-third of its potential.

Research began early in 1957 near Sewanee with pine regeneration studies aimed primarily at developing seeding and planting techniques for restoring the extensive areas of understocked land. Methods for direct seeding pine have now been developed, but additional investigation and pilot plant studies are needed. Pine-planting studies and owner experience have shown that early survival exceeds and growth compares favorably with that of the Coastal Plain. Soil studies are in progress for loblolly pine plantations and for the commercially valuable hardwoods. Research results based on work at the Sewanee project have been reported in 31 publications since 1957. These findings also benefit similar highland regions throughout the South.

The objective of the Sewanee research program is to provide information that will enable the landowner and forest manager to select and establish tree species capable of yielding the greatest returns on the various soil situations. Because of the mountainous nature of the land, conditions for establishment and growth of trees vary greatly, from the thin-soiled ridgetops to the deep coves and hollows. To provide this knowledge, particularly for hardwoods, will require not only field experiments but also intensive study of seed collection, processing, storage, treatment, protection, and germination; methods of seeding and planting; and the effect of soils on germination of seeds, survival of seedlings, and growth of trees. Such research involves complex problems of seed physiology and the physical and chemical properties of soils. It requires laboratory facilities and equipment, greenhouses, and office space for forest scientists.

The Sewanee project has made an excellent beginning but vitally needs a modern soils and silviculture laboratory and greenhouse for continued progress toward solution of regional forest problems. In 1963 Congress provided planning money, and a set of architect's plans and specifications have now been drawn up. An excellent location for such facilities is available on the University of the South campus. Through increased and more intensive research the potential contribution of this great but largely underdeveloped forest resource can be realized.

STATUS OF RESEARCH CONSTRUCTION

Chairman HAYDEN. For the past several years, we have appropriated funds for building a number of laboratories. Some of these were to be complete structures, others first stages to take care of immediate needs. I also understand you will not need any construction at some locations where you do research. Would you supply for the record a summary table of research construction to show where we stand with respect to these various situations involving facilities and what yet needs to be done? Also, summarize recent expenditures for construction and give your estimate of funds required to complete the job.

Mr. CLIFF. We will be glad to do so.

(The information referred to follows:)

*Laboratory facilities at permanent forestry research locations*

| | *Number of locations* |
|---|---|
| Locations where facilities are adequate, no construction required | 13 |
| Locations where facilities have been added by recent construction, no further construction required | 9 |
| Locations where laboratory needs have been partially met by recent 1st stage of construction planned, further construction required | [1] 25 |
| Locations where facilities are inadequate, no construction provided to date, construction required | [2] 33 |
| Total locations | 80 |

[1] Includes 1 location, Missoula, Mont., for which architectural and engineering planning funds were made available in fiscal year 1964. This building will be for a forestry sciences laboratory to house timber management, wildlife habitat, and forest products utilization studies. The first stage construction at Missoula was a forest fire laboratory provided for in fiscal year 1959.

[2] Includes 5 locations for which A. & E. planning funds were made available as follows:
1963: Madison, Wis., Forest Products Laboratory addition.
1964: Sewanee, Tenn., Silvicultural Laboratory.
1964: Morgantown, W.Va., Forestry Sciences Laboratory.
1964: Houghton, Mich., Forest Engineering Laboratory.
1964: Fort Collins, Colo., Rocky Mountain Forest Experiment Station, laboratories and main office.

Recent expenditures for research construction by fiscal year, and estimated funds required to complete the construction program as planned through fiscal year 1972 are as follows:

| Fiscal year: | *Amount* |
|---|---|
| 1959 | $2,500,000 |
| 1960 | None |
| 1961 | 1,075,000 |
| 1962 | 5,195,000 |
| 1963 | 2,550,000 |
| 1964 | 635,000 |
| Subtotal, expended | 11,955,000 |
| 1965 (in present budget estimate) | [1] 3,800,000 |
| Subtotal | 15,755,000 |
| Additional funds required to complete the construction as planned through 1972 | 41,600,000 |
| Total | 57,355,000 |

[1] Forest Products Laboratory addition at Madison, Wis.

FIRE CONTROL RESEARCH

Chairman HAYDEN. How did the 1963 fire season compare with previous years?

Mr. CLIFF. Mr. Chairman, I commented on that in my opening statement. It was more severe than normal, especially in the South and East. We did have an increase of burned acreage in the number of fires when you consider all forest lands.

Our record in the national forests is somewhat better than the 5-year average.

Chairman HAYDEN. What is the Forest Service doing to improve efficiency in fire control?

Mr. CLIFF. We have the two-pronged program. There is one in fire control research which I would like Dr. Harper to comment on, and Mr. Nelson has already discussed what we are doing in the administration of the fire control fund.

So if Dr. Harper would like to comment on what we are doing in fire control research, I would appreciate it.

Chairman HAYDEN. I am interested in efficiency in fire control.

USE OF CHEMICALS

Dr. HARPER. I would say that probably our greatest research development over the last few years has been in the use of chemicals in airplane support of ground firefighters. We have a number of chemicals that we have screened, tested, and put into practice. One of the best that has been most recently developed is diammonium phosphate, which also has fertilizer value, by the way. This, along with some kind of a jellylike agent that makes the chemical fire retardant stick to the vegetation has been very effective, particularly for use in the South.

FIRE DETECTION

We have also made considerable progress in detection of fires through a new device, an infrared scanning system, which permits seeing the outlines of a fire from an airplane, even at night, through clouds, smoke, and haze. This, I believe, will be a big achievement in increasing efficiency in fire control. Research has got to the stage now where we are making pilot tests of the new method, in cooperation with the firefighting organization of the national forests. There have been a number of other developments, Mr. Chairman. If you would like, I could add to this for the record.

Chairman HAYDEN. You may do that.

(The information referred to follows:)

PROGRESS IN FOREST FIRE CONTROL RESEARCH

In recent years forest fire research has contributed to more efficient fire control by improving forest fire danger measurement techniques. Systems of danger measurement are now widely used by almost all public and private fire control organizations to gage the day-to-day fluctuations in forest fire weather conditions so that they can vary their preparedness measures in accordance with the danger. This means that the maximum degree of preparation can be made on days of extreme danger. Savings are possible on low-danger days because firefighters can be safely used on other work. The Forest Service has recently completed a national fire danger rating system now under extensive trial, that standardizes methods of measurement and broadens the usefulness of danger rating.

The Forest Service scientists at Macon, Ga., have recently developed a laboratory model for a "fire whirl." Fire whirls are dangerous, sometimes violent winds that develop over some forest fires. These blow the fires out of control and endanger the lives of firefighters. Now that a way has been found to create fire whirls in the laboratory, the factors that cause them can be studied and evaluated and ways to predict their occurrence can be developed. This information will be of value to firefighters in predicting the occurrence of whirls and avoiding the hazards they create.

Progress has been made in identifying the underlying causes of some types of man-caused fires. In California, for example, studies of hunter activities and awareness of fire problems showed that fire prevention information was not understood by large numbers of hunters. Many were ignorant of forest fire regulations. Changes in fire prevention programs are correcting this situation.

Substantial progress in research on forest fuels—the dead and living materials that carry fire—has given the firefighters a better basis for developing the strategy and tactics for successful control. Recent studies have helped evaluate the seasonal changes in highly combustible volatile oils that occur in certain types of brush. Rates of deterioration in logging slash, hence its flammability, have been established. This information aids fire control officials to plan more accurately in advance where the greatest fuel hazards will be found and how they are changing.

Better forecasts of local winds are now aiding firefighters in some areas as a result of research on "topometeorology." These studies evaluate the effect of local topography on wind and weather in relation to the broader regional weather systems. Thus, fire forces know what to expect in each mountain canyon and can prepare their plans for combating fire with greater effectiveness and with less risk to human life.

Progress in the development of prescribed burning techniques in the South, Southwest, Pacific coast, and northern Rocky Mountains, has aided in forest fuel reduction programs. These programs are lessening the risk of fires starting and are reducing the likelihood of intense, hard-to-handle fires if blazes do occur. The research is providing the technical guides for the safe use of controlled fire in many situations.

### Rural Area Development

Chairman Hayden. How do State and private cooperative forestry activities tie in with and contribute to rural areas development—especially for the cooperative fire, forest management and processing, and general forestry assistance items for which increases are requested?

Mr. Cliff. Mr. Chairman, I am sure that this committee appreciates the vital place that the private forest lands play in the forest economy of this country and the vital place that forestry generally plays.

### Correlation Between Commercial Forest Lands and Unemployment

About 60 percent of the privately owned commercial forest lands in this country are owned by small woodland owners. Generally speaking, the small woodland ownerships generally are in poorer condition than the industrial ownerships, or the publicly owned forest lands. It is here that the big problem lies in getting better forestry practices. Now if I had my map with me that shows the incidence of this commercial forest land and the incidence of chronic unemployment in this country, it would show that there is a close correlation between the commercial forest lands in the country and the areas of chronic unemployment. Part of this is due to the poor condition, the undeveloped condition of much of our private forest land, and the major problems of the small forest ownerships. So I think there is an opportunity to make a real contribution in furnishing work, and by building up basic resources, to get at this unemployment and the poverty program through sound forestry programs. We are working with and through the States in trying to promote better management on this private forest land, particularly the small ownerships. As you know, we provide funds on a matching basis for fire control and we still have a big job to do to get adequate fire control on private forest lands.

There are still about 24 million acres that do not get any organized protection and we have a large amount more that needs more intensive protection. This is basic.

### Assistance Programs

We also have a program for giving assistance through State foresters to owners of private lands in advising them how to better manage their lands and finding better markets for their timber. This budget would provide some more money to expand this cooperative program.

Then, we also provide general technical assistance to the States and to the private land owners where they need specialists. Let me say it this way: We have marketing specialists. We have specialists in seeding and planting that work on problems of concern to several States. Our general forestry assistance program provides these technicians and their services are made available to a number of States. We can strengthen and broaden our technical assistance in this manner.

We have had a change, Mr. Chairman, in our leadership for State and private forestry. Mr. W. S. (Bill) Swingler, who has been appearing before this committee for about 11 years now and who was in charge of our State and private forestry activities, retired at the end of 1963. He has been replaced by Boyd Rasmussen, who we brought in from the regional forester position at Missoula Mont. Mr. Rasmussen is not here today, but his deputy, Mr. Arthur Spillers, is here and he is qualified to answer any detailed questions you might have on State and private forestry programs.

### Forest Roads and Trails

Chairman Hayden. For forest roads and trails you are asking $72,300,000 in fiscal year 1965 to liquidate contract authorizations. This is $9,100,000 more than was appropriated in fiscal year 1964. The justifications for this request will be printed in the record.

(The justification statement referred to follows:)

### Forest Roads and Trails

| | |
|---|---|
| Appropriation Act, 1964, and base for 1965 | $63, 200, 000 |
| Budget estimate, 1965 | 72, 300, 000 |
| Increase | +9, 100, 000 |

This appropriation provides for the liquidation of obligations incurred for the construction and maintenance of forest roads and trails (and the purchase of access roads) pursuant to the authorization contained in the Federal Highway Act of 1962. An appropriation of $72,300,000 for 1965 will provide sufficient cash to liquidate prior year obligations and obligations planned for fiscal year 1965 which must be paid by June 30, 1965.

*Analysis of cash requirements by activities* [1]

| | Actual, 1963 | Estimated, 1964 | Estimated, 1965 | Increase or decrease |
|---|---|---|---|---|
| Construction of roads and trails | $29, 140, 194 | $60, 848, 606 | $60, 700, 000 | −$148, 606 |
| Maintenance of roads and trails | 10, 250, 000 | 11, 500, 000 | 11, 600, 000 | +100, 000 |
| Total | 39, 390, 194 | 72, 348, 606 | 72, 300, 000 | −48, 606 |

[1] The annual appropriation language and these explanatory notes combine the appropriation for "Forest roads and trails" made pursuant to 23 U.S.C. 205 and the appropriation of 10 percent of forest receipts for construction and maintenance of roads and trails pursuant to 16 U.S.C. 501. This merger of funds is made in order to simplify the programing, allotment, and accounting of funds at the field level. Since the accounts for these 2 funds are merged, it is not practicable to distribute obligations and expenditures between the 2 appropriations on a precise basis. The amounts shown for the "Forest roads and trails" appropriation are a proration based on the percentage that contract authorization used under the appropriated funds is of total available funds. Expenditure amounts for maintenance are based on all such obligations requiring cash payment during the fiscal year.

*Authorizations for appropriations* [1]

| Fiscal year | Construction | Maintenance | Total | Funded | Unfunded |
|---|---|---|---|---|---|
| 1963 | $41,000,000 | $9,000,000 | $50,000,000 | $50,000,000 | |
| 1964 | 58,000,000 | 12,000,000 | 70,000,000 | [2] 47,036,000 | [3] $22,964,000 |
| 1965 | 72,900,000 | 12,100,000 | 85,000,000 | 72,300,000 | [4] 12,700,000 |
| Total | 171,900,000 | 33,100,000 | 205,000,000 | 169,336,000 | [5] 35,664,000 |

[1] The annual appropriation language and these explanatory notes combine the appropriation for "Forest roads and trails" made pursuant to 23 U.S.C. 205 and the appropriation of 10 percent of forest receipts for construction and maintenance of roads and trails pursuant to 16 U.S.C. 501. This merger of funds is made in order to simplify the programing, allotment, and accounting of funds at the field level. Since the accounts for these 2 funds are merged, it is not practicable to distribute obligations and expenditures between the 2 appropriations on a precise basis. The amounts shown for the "Forest roads and trails" appropriation are a proration based on the percentage that contract authorization used under the appropriated funds is of total available funds. Expenditure amounts for maintenance are based on all such obligations requiring cash payment during the fiscal year.

[2] The 1964 appropriation of $63,200,000 less prior year unfunded authorization of $16,164,000 provides $47,036,000 for funding of the $70,000,000 authorization for 1964.

[3] Includes $5,000,000 of the 1964 authorization which will not be obligated in 1964.

[4] Includes $12,500,000 of the 1965 authorization which will not be obligated in 1965.

[5] Net unfunded obligations is $18,164,000.

*Status of unfunded authorizations*

| | |
|---|---|
| Unfunded contract authorizations beginning of 1964 | $86,164,000 |
| Appropriation, 1964 | −63,200,000 |
| New contract authorization, 1964 (1965 authorization available in 1964—Federal Highway Act of 1962, approved Oct. 23, 1962) | 85,000,000 |
| 1964 administrative cancellation of obligating authority | −5,000,000 |
| 1965 administrative cancellation of obligating authority | −12,500,000 |
| Total unfunded beginning of 1965 | 90,464,000 |
| 1965 budget estimate (cash requirements) | −72,300,000 |
| Balance to remain unfunded as of June 30, 1965 | [1] 18,164,000 |

[1] Total unfunded under Highway Act authorities, including the cancellation, is estimated to be $35,664,000

*Analysis of cash requirements*

| | | | |
|---|---|---|---|
| 1. | Unliquidated obligations, June 30, 1963 | | $24,851,209 |
| 2. | Estimated cash requirements to finance 1964 program | | [1] 47,497,397 |
| 3. | Total cash requirements by June 30, 1964 | | 72,348,606 |
| 4. | Less cash on hand 1964: | | |
| | Balance from 1963 | $9,148,606 | |
| | Appropriated 1964 | 63,200,000 | |
| | | | 72,348,606 |
| 5. | Cash balance from 1964 available for use in 1965 | | |
| 6. | Obligations in 1964 for which cash was not provided in item 2 | | 17,964,000 |
| 7. | Estimated cash required to finance 1965 program | | [2] 54,336,000 |
| 8. | Total cash required for 1965 | | 72,300,000 |

[1] An estimated 73 percent of the $65,461,396 of new obligations will require cash payments during the fiscal year.

[2] An estimated 75 percent of $72,500,000 of new obligations will require cash payments during the fiscal year.

The following table reflects the total program for the construction and maintenance of roads and trails on the national forests for combining the funds available under the appropriation forest roads and trails with the permanent appropriation of 10 percent of national forest receipts. This permanent appropriation for roads and trails for States (10 percent fund) is estimated at $12,400,000 for 1965 compared with $12,000,882 for 1964, an increase of $399,118.

*Project statement*

| Project | 1963 | 1964 (estimated) | Increases and decreases | | 1965 (estimated) |
|---|---|---|---|---|---|
| | | | Increased pay costs (Public Law 87-793) | Other | |
| 1. Construction of roads and trails | $47,823,235 | $63,462,278 | +$345,000 | +$6,907,722 | $70,715,000 |
| 2. Maintenance of roads and trails | 12,777,409 | 14,000,000 | +185,000 | ---------- | 14,185,000 |
| Total obligations | 60,600,644 | 77,462,278 | +530,000 | +6,907,722 | 84,900,000 |
| Transfer from roads and trails for States | −10,900,118 | −12,000,882 | ---------- | −399,118 | −12,400,000 |
| Program under forest roads and trails contract authorization | 49,700,526 | 65,461,396 | +530,000 | +6,508,604 | 72,500,000 |
| Change in unfunded obligations | −5,200,526 | −2,261,396 | ---------- | +2,061,396 | −200,000 |
| Subtotal | 44,500,000 | 63,200,000 | +530,000 | +8,570,000 | 72,300,000 |
| Total increased pay costs on second step of pay increase (Public Law 87-793) | ---------- | (488,000) | (+530,000) | (+60,000) | (1,078,000) |
| Total available or estimate | 44,500,000 | 63,200,000 | +530,000 | +8,570,000 | 72,300,000 |

An increase of $9,100,000 ($8,570,000 program and $530,000 pay cost) is needed to meet cash requirements for liquidation of contract authorization. This appropriation provides for the liquidation of obligations incurred for the construction and maintenance of forest roads and trails pursuant to the authorization contained in the Federal Highway Act of 1962. An appropriation of $72,300,000 for 1965 is required to:

(*a*) Pay for obligations of the prior year which will be due for payment in fiscal year 1965, and

(*b*) Pay the portion of 1965 obligations of $72,500,000 contract authorization which will require cash payment in that year.

The presence or lack of access by road or trail has a direct and controlling influence on all aspects of forest management, protection, utilization, and development. An adequate system of forest development roads and trails must be installed and maintained to facilitate the maximum practicable yield and use of all forest resources on a sound sustained-yield basis.

The road and trail needs are estimated on the basis of requirements for access in the year 2000 for major needs such as the protection of watersheds producing 200 million acre-feet of water annually, recreation and wildlife use by 635 million visitors a year, an annual timber cut of 21 billion board feet, and grazing use on 60 million acres of rangeland. It is estimated that this will require the construction of 380,000 miles of new roads, 6,000 miles of trails, and the reconstruction of 105,000 miles of existing roads and 10,500 miles of existing trails.

During the period 1963–72, 46,400 miles of multipurpose roads and 8,000 miles of trails should be constructed by the Forest Service at a total cost of $1.3 billion. At the 1964 construction level of $63.5 million, it would take over 20 years to provide the transportation system that should be in place by 1972.

The Federal Highway Act of 1962 provides forest development road and trail authorizations of $70 million for 1964 and $85 million for 1965. The 1964 appropriation provides for utilization of only $65 million of the $70 million authority with $5 million subject to administrative cancellation. The 1965 budget proposal contemplates use of $72.5 million of the $85 million authority with $12.5 million subject to administrative cancellation.

Pay act costs for fiscal years 1963 and 1964 have been absorbed within the available obligating authorities:

| | |
|---|---|
| 1963 | $862,000 |
| 1964 | 1,800,000 |

The total cumulative pay act costs for fiscal year 1965 are estimated to be $2,330,000 of which $1,800,000 was previously absorbed in the 1964 appropriation. Cumulatively, for the period 1963–65, a total of $4,462,000 of such costs will have been absorbed.

The $530,000 shown for 1965 represents the cost of the additional increase effective January 5, 1964, pursuant to Public Law 87-793, that must be absorbed within the obligating authority authorized for use. The 1964 appropriation included the costs related to the second step of the pay increase for approximately one-half year. In order to continue all programs financed from this appropriation at the 1964 program levels, the additional salary cost impact for the full year must be provided.

Following is a summary of the road program proposed for 1965:

| | Units | Estimated cost |
|---|---|---|
| Construction and reconstruction: | | |
| Bridges | 280 | $5,000,000 |
| Roads | [1] 1,900 | 38,915,000 |
| Trails | [1] 687 | 2,000,000 |
| Surveys, plans, and supervision for timber purchaser roads | [1] 4,900 | 19,300,000 |
| Federal cost for timber purchaser construction | [1] 1,200 | 4,500,000 |
| Road purchase | | 1,000,000 |
| Subtotal, construction and reconstruction | | 70,715,000 |
| Maintenance | | 14,185,000 |
| Total | | 84,900,000 |

[1] Miles.

*Access roads—Project statement*

| Project | 1963 | 1964 (estimated) | 1965 (estimated) |
|---|---|---|---|
| Access roads | $1,972,337 | $1,121,243 | |
| Unobligated balance brought forward | −1,128,629 | −1,121,243 | |
| Unobligated balance carried forward | 1,121,243 | | |
| Unobligated balance lapsing | 35,049 | | |
| Total available or estimate | 2,000,000 | | |

An unobligated balance of $1,121,243 from the fiscal year 1962 appropriation will be fully obligated during fiscal year 1964. During fiscal year 1963, 750 cases were obtained involving 558 miles of new land easements or rights-of-way over existing roads or interests in existing roads. A total of 29 road rights-of-way condemantion cases were filed. An estimated 1,000 miles will be obtained in fiscal year 1964.

Effective with fiscal year 1964, this appropriation was eliminated and future access road purchase, beyond that to be accomplished with the balance remaining in this appropriation, will be accomplished under the "Forest roads and trails" appropriation.

1965 Proposed Program

Chairman Hayden. Would you please comment on your proposed program during the coming year?

Mr. Cliff. Mr. Nelson will respond to that.

Mr. Nelson. We proposed to continue with our multiple use road and trail programs which will include for next year the construction of about 280 bridges, 1,900 miles of roads, about 687 miles of trails, and in addition, we have the planning and surveying not only for those roads, but for the roads that are built by timber sale operators as a part of their timber sale. We expect to do surveys and planning on 4,900 miles of roads this coming fiscal year. In connection with these roads which are constructed in relation with the timber sale contracts, we find that it is nececcssary and desirable to have them constructed often to a higher standard than can be justified for the timber sale. The reason is to give us a multiple-purpose road to be used for recreation and for other forest uses.

We expect to supplement timber purchase construction on about 1,200 miles with dollars. In addition to that, we do some purchasing of roads already constructed on private lands, roads that are needed for the national forest program, hauling the timber and public use. We expect to spend about $1 million for purchase of those types of roads that are already constructed.

IMPORTANCE OF MAINTAINING ROAD PROGRAM SCHEDULE

This program, in relation to the national forest program, puts us about 68 percent of what was planned for 1965 for the national forest program, whereas the overall is about 67 percent. We think it is real important to keep our road program even with the national forest, especially because one of the items that is financed more than the average is timber sales and timber sales account for about 70 percent of our needs for roads. So it is essential that the road program keep abreast of the rest of the development. Otherwise, we get ourselves in a position where we cannot get the sales made or we have money for recreation development and cannot get the roads to the recreation areas.

Chairman HAYDEN. Are you satisfied with the progress that you have made?

Mr. CLIFF. I would be less than honest, Senator, to say that we are satisfied. We are not satisfied when we are not meeting the goals that have been set and which we feel are truly justified. However, we feel we are making progress. When you compare where we were just a few years ago, we have made real good progress.

Chairman HAYDEN. This committee has been trying to help out in every way it could.

Mr. CLIFF. We are moving ahead. We think there is a need for this work even beyond what the budget provides for, but considering the overall budget situation, this is all that could be included for next year. The Federal Highway Act provides for new obligations for 1965 of $85 million but only $72.5 million is authorized for use in this budget request.

SOUTH DAKOTA FOREST ROADS AND TRAILS PROGRAM

Senator MUNDT. Mr. Chairman, I have a question on this point. I understand it correctly, I believe, that you have appropriated or planned to spend about $530,000 for forest roads and trails in the next fiscal year in South Dakota. The question, No. 1, is my information correct?

Question No. 2. How and where do you plan to spend it?

Mr. NELSON. Senator, I do not have my table here on the breakdown between the States. May I supply it for the record?

Senator MUNDT. Very well, and send a copy to my office.

Senator BIBLE. May I interpose a request, Mr. Chairman, and have the same type of breakdown provided for the State of Nevada?

Senator HAYDEN. You may also do that for the State of Arizona.

Mr. NELSON. Yes, sir.

(The table referred to follows:)

CONSTRUCTION AND MAINTENANCE PROGRAM

For Arizona we expect to obligate $3,407,000 for both construction and maintenance. The major road projects we expect to construct are—

Apache National Forest: Willow, Cole, Mexican Hay, and Big Lake roads.

Coconino National Forest: Cave Spring and Jones Mountain roads.
Coronado National Forest: Parker Lake road and Sabino Canyon trail.
Kaibab National Forest: Rosilda Springs, Twin Springs, and west side roads.
Prescott National Forest: Walker and Walker Big Bug roads.
Sitgreaves National Forest: Wallace road.
Tonto National Forest: Tortilla, Ponderosa, P. Perhatchery, Diamond Lookout, and Dutchman roads.

For Nevada we expect to obligate $748,000 for construction and maintenance. The major road projects we expect to construct are on the Humboldt National Forest known as the Lehman Creek and the McCarran Way roads.

For South Dakota we expect to obligate $530,000 for construction and maintenance. The major road projects will all be on the Black Hills National Forest known as the Savoy Tinton, Flag Mountain, Handy, Long Draw, White Tail, Parkerville Campground roads, and two bridges.

### Acquisition of Lands for National Forests, Special Acts

Chairman Haydfn: There will be placed in the record justification for your estimate of $70,000 needed for acquisition of lands in various national forests as authorized by special acts of Congress.

(The justification statement referred to follows.)

| | |
|---|---|
| Appropriation Act, 1964 and base for 1965 | $70, 000 |
| Budget estimate, 1965 | 70, 000 |

*Project statement*

| Project | 1963 | 1964 (estimated) | 1965 (estimated) |
|---|---|---|---|
| 1. Cache National Forest, Utah | $10, 000 | $10, 000 | $10, 000 |
| 2. Uinta and Wasatch National Forests, Utah | 9, 569 | 20, 000 | 20, 000 |
| 3. Toiyabe National Forest, Nev | | 8, 000 | 8, 000 |
| 4. Angeles National Forest, Calif | | 8, 000 | 8, 000 |
| 5. Cleveland National Forest, San Diego County, Calif | | 8, 000 | 8, 000 |
| 6. San Bernardino-Cleveland National Forests, Riverside County, Calif | | 8, 000 | 8, 000 |
| 7. Sequoia National Forest, Calif | | 8, 000 | 8, 000 |
| Unobligated balance reverted to national forests fund | 10, 431 | | |
| Increased pay costs on second step of pay increase (Public Law 87-793) | | (125) | (250) |
| Total available or estimate | 30, 000 | 70, 000 | 70, 000 |

The Congress has enacted several special laws which authorize appropriation from the receipts of certain specified national forests for the purchase of lands to minimize erosion and flood damage. Appropriations under seven of these special acts for 1964 are:

*Forest and act*

| | |
|---|---|
| Cache (Utah), act of May 11, 1938, as amended | $10, 000 |
| Uinta-Wasatch (Utah), act of Aug. 26, 1935, as amended | 20, 000 |
| Toiyabe (Nevada), act of June 25, 1938, as amended | 8, 000 |
| Angeles (California), act of June 11, 1940 | 8, 000 |
| Cleveland, San Diego County, Calif., act of June 11, 1940 | 8, 000 |
| San Bernardino-Cleveland, Riverside County, Calif., act of June 15, 1938, as amended | 8, 000 |
| Sequoia (California), act of June 17, 1940 | 8, 000 |
| Total | 70, 000 |

There are within each of the above national forests, areas of critical watershed lands where the soil must be stabilized and vegetative cover restored if serious erosion and damaging floods are to be avoided. Necessary land treatment measures must be applied to all lands in the critical positions of these waterhseds if corrective action is to be fully effective. To assure that this will be done, intermingled private ownership must be acquired by the Federal Government.

During fiscal year 1963 field examination was completed on 16,000 acres, and 1,262 acres of land were purchased under the special purchase authorities applying

to the Cache, Uinta, and Wasatch National Forests in Utah. Figure V–1 shows a portion of one of the upper drainages in the American Fork Canyon Watershed, Uinta National Forest, in which such purchases are being made. It is typical of the type of country which if misused or improperly protected can funnel floodwaters into main channels with disasterous downstream effects.

*Cache National Forest*

In fiscal year 1963 funds were available from two sources for purchase of lands within the Cache National Forest in Utah.

1. The Receipts Act of May 11, 1938, as amended—$10,000. This is an annual appropriation.

2. The act of July 24, 1956—$200,000 appropriated under this authority in fiscal years 1957 through 1960. These funds remain available until expended. Through fiscal year 1963 $148,896 has been obligated from this appropriation.

These funds are used to acquire key tracts of lands in the steep, rough, and highly important watershed areas lying north of the Ogden River, along the Wasatch front, and on the Wellesville Mountain of the Cache National Forest. These are tracts of land in the rugged mountain area above the river valley which through forest fires or overgrazing have been damaged and their watershed functions impaired. In this condition they contribute to excessive runoff of rainfall, are subject to erosion, and are potential sources of floods and mudrock flows. Many of them are located in the north fork of Ogden River and drain into the Pineview Reservoir, a Federal reclamation project. Others are within the watersheds of the city of Ogden and of the other small towns along the Wasatch front. Public ownership of these lands to restore and protect their vegetative cover is a highly important part of a vigorous cooperative program to protect and stabilize the watersheds of the local communities and the area draining into this expensive Federal project.

The 1956 act requires that expenditures of Federal funds be matched by contributions by local agencies or people. This requirement has been met through donations of lands to the extent of some $184,000. Additional contributions are expected in fiscal year 1964. The appropriation of $10,000 under the act of May 11, 1938 is from receipts of the Cache National Forest. In the absence of this appropriation, the local counties would receive 25 percent of these receipts for roads and school purposes.

Therefore, the local counties, in effect, are contributing one-fourth of the amount of this appropriation. These appropriations are extremely important to the continuation of a vital and worthwhile program extending over 20 years and shared in by both the local agencies and the Federal Government through the national forests.

Through fiscal year 1963, 28,011 acres have been approved for purchase pursuant to the Receipts Act of 1938, and 14,120 acres under the Special Act of 1956. The 1964 objective is to acquire 2,300 additional acres of these critical watershed lands.

*Uinta-Wasatch*

In fiscal years 1963 and 1964 an appropriation of $20,000 was made under the Uinta-Wasatch Receipts Act of August 26, 1935, for acquiring critical watershed lands in the American Fork Canyon watershed. Some 555 acres were approved for purchase in fiscal year 1963 and an estimated 700 acres will be acquired during 1964. It is estimated that it will take from 4 to 5 years to complete the necessary American Fork acquisitions.

*Toiyabe, Angeles, Cleveland, San Bernardino, and Sequoia National Forests*

In fiscal year 1964, $8,000 was appropriated under each of these special acts to begin a program of acquiring critical watershed lands in these national forests. It is estimated that approximately 700 acres will be purchased during 1964.

WASATCH NATIONAL FOREST

Chairman HAYDEN. Also, I will insert in the record your justification of an estimate of $150,000 for fiscal year 1965 for acquisition of lands for the Wasatch National Forest. I believe that this is the total amount authorized for this purpose.

(The justification statement requested follows:)

ACQUISITION OF LANDS FOR WASATCH NATIONAL FOREST

| | |
|---|---|
| Appropriation, 1964, and base for 1965 | $250,000 |
| Budget estimate, 1965 | 150,000 |
| Decrease | −100,000 |

*Project statement*

| Project | 1963 | 1964 (estimated) | Decrease | 1965 (estimated) |
|---|---|---|---|---|
| Acquisition of lands for Wasatch National Forest (total available or estimate) | | $250,000 | −$100,000 | $150,000 |
| Total increased pay costs on 2d step of pay increase (Public Law 87-793) | | (375) | (−375) | |

(1) Public Law 87-661, approved September 14, 1962, added some 24,000 acres of land to the Wasatch National Forest in Utah, of which only approximately 5,000 acres in scattered tracts are now in Federal ownership. This act authorizes the appropriation of $400,000 for the purchase of privately owned lands in this area. The fiscal year 1964 appropriation of $250,000 leaves a balance of $150,000 yet to be provided within this authorization.

Federal acquisition of these lands is imperative to aid in the control of floods and the reduction of soil erosion, and to permit management under principles of multiple use and sustained yield. The primary value of these lands is for watershed purposes. Presently most of the land is in a depleted condition from the standpoint of forage production and watershed capability. Sheet erosion is conspicuous on the steep upper slopes and drainages and the higher elevations are deeply gullied. On the benchlands the better forage and watershed plants have been largely replaced by annual plants of lesser value, and sheet erosion and gullying are beginning. These conditions, combined with the precipitous topography. pose threats of serious flood damage to properties below. Seven miles of the Gateway Canal are vulnerable to disrupting damage from excessive runoff or mudflows. This canal, a unit of the Weber Basin reclamation project, delivers vital supplies of water for distribution to heavily populated areas. Portions of the Union Pacific Railroad mainline and of Interstate Highway No. 40, as well as farmlands, also are vulnerable to damage originating on these lands. Public control of large contiguous areas comprising the watershed is essential in order that rehabilitation and land management measures may be undertaken to correct these unsatisfactory conditions. The $150,000 requested would be used to complete the acquisition of key tracts in the area.

Approximately 15,000 acres of land will be purchased in 1964. Some 14,000 acres of this is in a single private ownership. The additional $150,000 proposed for fiscal year 1965 will permit acquisition of the remaining key tracts of private lands within this area.

TREE PLANTING

Chairman HAYDEN. The budget justification in support of your request for $1 million to assist States in their tree-planting programs will be printed in the record.

(The justification statement referred to follows:)

| | |
|---|---|
| Appropriation act, 1964 and base for 1965 | $1,000,000 |
| Budget estimate, 1965 | 1,000,000 |

*Project statement*

| Project | 1963 | 1964 (estimated) | Increases and decreases | 1965 (estimated) |
|---|---|---|---|---|
| Tree planting assistance | $992,121 | $1,015,365 | | $1,000,000 |
| Unobligated balance brought forward | −7,486 | −15,365 | | |
| Unobligated balance carried forward | 15,365 | | | |
| Total increased pay costs on second step of pay increase (Public Law 87-793) | | (3,000) | (+3,000) | (6,000) |
| Total available or estimate | 1,000,000 | 1,000,000 | | 1,000,000 |

This program's objective is to encourage and help finance the forestation of the 70 million acres of private and non-Federal public land. At the present rate of planting it will take over 70 years to complete this job. A substantial increase in the rate of forestation is required to help meet future national anticipated needs for industrial wood. It is also needed to provide additional employment in depressed rural areas and assist in the immediate and future economic development of these rural areas through more intensive multiple use and development of the forest land resource, and through the forest and other industries these lands can help support. The activities and industries to be stimulated and in part supported by the forestation work include forest-based timber industry, forest-based recreation industry, recreation and forest industry-based transportation and the supplying of services to these by individuals and organizations.

The States continue to show increased interest in reforestation under the authority of title IV of the Agricultural Act of 1956. Thirty-three States now participate in the program. They have plans approved for forestation work on over 1,220,000 acres mostly in State and county ownerships. The total estimated cost is $41,524,000.

This program is making valuable contribution to the future production of industrial wood. It affords the States an opportunity to accelerate their forestation work on unproductive areas. In addition to production of timber, there are benefits to soil conservation, watershed protection, wildlife habitat, and esthetic and recreation values. It also is affording needed employment in many rural areas.

PROGRESS OF THE PLANTING PROGRAM

Chairman HAYDEN. Would you care to comment on the progress that you have made with the funds that you had last year for this purpose?

Mr. NELSON. I will ask Mr. Spillers to respond to that.

Mr. SPILLERS. Of course, I will be very happy to comment on that, Mr. Chairman. This has been one of our most popular programs. It is tied in with the Agriculture Act of 1956, but we did not get money for it until fiscal year 1958. Last year and the year before we received $1 million. So far, 33 States have come in with 42 projects. So, you see, it has been a very popular program and very well received.

The States are now planning to plant over a million acres under this program. The States are matching us more than 3 to 1, so that indicates their interest, Senator.

Chairman HAYDEN. I have also considered that to be some of the best money we can spend.

MISCELLANEOUS STATEMENTS AND JUSTIFICATIONS

Also, there will be printed in the record, the statement regarding cooperative range improvements, proposed language changes, your justification for purchase of automotive equipment and aircraft, as well as the statements regarding permanent appropriations, payments to be made under various acts, the working capital fund, and the cooperative trust fund.

(The statements referred to follow:)

## Cooperative Range Improvements

| | |
|---|---|
| Appropriation Act, 1964 and base for 1965 | $700,000 |
| Budget estimate, 1965 | 700,000 |

Part of the grazing fees from the national forests, when appropriated, are used to protect or improve the productivity of the range, mainly by construction and maintenance of fences, stock-watering facilities, bridges, corrals, and driveways. These funds are advanced to and merged with the appropriation forest protection and utilization, subappropriation forest land management.

### FORMULA FOR APPROPRIATION

Section 12 of the act of April 24, 1950 (Granger-Thye Act) provides that of the moneys received from grazing fees by the Treasury from each national forest during each fiscal year there shall be available at the end thereof when appropriated by Congress an amount equivalent to 2 cents per animal-month for sheep and goats and 10 cents per animal-month for other kinds of livestock under permit on such national forest during the calendar year in which the fiscal year begins.

The appropriation for this item since fiscal year 1951 has been $700,000, except for fiscal years 1954 and 1955 when $531,000 and $400,000 were appropriated. Since the actual use figures are not available until after more than one-half of the fiscal year for which funds are appropriated has elapsed, the 1965 appropriation request of $700,000 necessarily represents the best current approximation of the amount which will become available in the calendar year 1964 under the animal-months-of-use formula.

For calendar year 1962, the latest available figures, use amounted to 5,491,911 animal-months for cattle and horses; 6,283,040 animal-months for sheep and goats and 494 for swine. This use under the 2- and 10-cents formula calculated to $674,901.

## Changes in Language

Changes in the language of this item are proposed as follows (new language italic; deleted matter enclosed in brackets):

Appropriations available to the Forest Service for the current fiscal year shall be available for: (a) purchase of not to exceed one hundred and [thirty-six] *fifty-five* passenger motor vehicles of which one hundred and [twenty-six] *fourteen* shall be for replacement only, and hire of such vehicles; operation and maintenance of aircraft and the purchase of not to exceed [five of which three shall be] *six* for replacement only; (b) employment pursuant to the second sentence of section 706(a) of the Organic Act of 1944 (5 U.S.C. 574), as amended by section 15 of the Act of August 2, 1946 (5 U.S.C. 55a), in an amount not to exceed $25,000; (c) uniforms, or allowances therefor, as authorized by the Act of September 1, 1954, as amended (5 U.S.C. 2131); (d) purchase, erection, and alteration of buildings and other public improvements (5 U.S.C. 565a); (e) expenses of the National Forest Reservation Commission as authorized by section 14 of the Act of March 1, 1911 (16 U.S.C. 514); and (f) acquisition of land and interests therein for sites for administrative purposes [and acquisition of such outstanding interests in lands administered by the Forest Service in the northeast Georgia land utilization project], pursuant to the Act of August 3, 1956 (7 U.S.C. 428a).

The first and second changes in language would provide authority for the Forest Service to purchase 155 passenger motor vehicles of which 114 will be replacements.

The third change in language would provide authority for the Forest Service to purchase six aircraft which will be replacements. It is also proposed to transfer four aircraft from other agencies as available.

The fourth change deletes the special authorization for acquisition of outstanding interests in lands administered by the Forest Service in the State of Georgia. This will be accomplished during fiscal year 1964 so the authority need not be continued.

## Passenger Motor Vehicles

### PURCHASE OF PASSENGER MOTOR VEHICLES

During fiscal year 1965 it is proposed to replace 114 passenger cars, 11 of which are station wagons, all of which will meet replacement standards. It is also proposed to purchase 41 additional passenger cars. In some instances, due to actual program needs, it may be necessary to substitute a sedan for a station wagon or vice versa at the time orders are placed which could make a minor change in the relative number of sedans and station wagons shown, but this would not change the total number of passenger motor vehicles scheduled for replacement and addition.

Based on the planned schedule of replacements and purchase of additions, the Forest Service would have a total of 687 passenger vehicles, excluding 4 busses, in fiscal year 1965. On analysis of vehicle use and age pattern, the fleet is expected to include 114 units which will meet or exceed replacement standards before replacements are received.

USE OF VEHICLES

Passenger motor vehicles are used by (1) forest officers in the protection, utilization, management, and development of the national forests and land utilization projects and in the program for control of forest pests; (2) research technicians on experimental forests and ranges, on field research projects and forest surveys; foresters engaged in carrying out the laws providing for State and private forestry cooperation; and (4) regional office field-going administrative personnel in performing, directing, and inspecting fieldwork.

The Forest Service is essentially a field organization and its passenger motor vehicles are located mainly at regional, national forest, and ranger district headquarters, and experimental forests and ranges. There are over 232 million acres within the exterior boundaries of the national forests. About 435 million acres of State and private forest land are included within the areas which benefit from Federal participation in the cooperative forest program. Much of this area is without common carrier service, and most forest areas and research centers are remote from commercial travel routes, requiring extensive use of motor vehicles as a means of transportation. The major portion of transportation needs, particularly at forest regional and supervisor levels and at other larger headquarters involves multiple-passenger use and can be more expeditiously and economically met by use of sedans and station wagons than by other types of vehicles.

JUSTIFICATION OF REPLACEMENTS

Dependability of passenger vehicles is an important factor in keeping work programs on schedule and in meeting emergencies. Vehicle breakdowns while on field travel cause disruptions and delays in fieldwork as well as loss of effective worktime of employees. The continued use of overage equipment is undesirable from a safety standpoint since most of it is operated over rough, narrow, winding roads in mountainous country under adverse conditions. This use generally results in excessive operating and repair expenses when vehicles reach or exceed replacement standards.

In order to maintain passenger cars in a safe and satisfactory operating condition, it is the policy of the Forest Service to schedule periodic preventive maintenance inspections, services, and tuneups to reduce the necessity for costly repairs and major overhauls, and to minimize lost time resulting from field breakdowns.

It is desirable to maintain a reasonable balance in the age class of the passenger vehicle inventory. The age class distribution is based upon conforming with replacement standards which recognize that some units will be retired under the age standard and others under the use standard. Prescribed replacement standards, although applicable, are not always appropriate for all Forest Service vehicles because of the wide range of operating conditions and the comparatively short field season in many of the national forests at higher elevations. Decision on replacement of passenger vehicles which reach replacement age is based on an appraisal of each unit. This involves a review of the history record combined with a mechanical inspection of the vehicle's condition and repair liability. When such appraisal indicates that the vehicle is satisfactory for further service without unreasonable repair expenditures, it is retained and assigned to lighter work, even though such action tends to upset the age standards for the fleet inventory.

The vehicles selected for replacement are those which cannot be operated another season without excessive repair expense. They are unsatisfactory for further use both as to safety and mechanical condition. The replacement authorization requested is within the normal annual replacement standards prescribed by General Services Administration (i.e., a maximum of 60,000 miles or 6 years, whichever occurs first).

Essentially all passenger vehicles are pooled for use by all activities with replacement of pooled units financed from a working capital fund. All appropriations reimburse this fund in ratio to use of vehicles on activities financed by the respective appropriations.

None of the replacements requested will be assigned to areas served or scheduled to be served by Interagency Motor Pools.

JUSTIFICATION OF ADDITIONAL VEHICLES

The Forest Service analyzes current work plans and programs in determining its overall passenger car requirements. This analysis includes a careful study of the number of vehicles needed at each field station, using as a guiding principle the ownership of only the minimum number of dependable units required to serve programs for which funds are budgeted. Also, it is Forest Service policy to utilize interagency motor pools or commercial car rental services to the fullest practicable extent. Passenger car use is restricted and is integrated with various activities so as to attain good utilization of all vehicles. Expanding activities in research, timber sales, public use of recreational facilities, fire protection, and other land management activities are increasing the need for more passenger cars. These increasing needs are being met in some areas through greater use of interagency motor pool vehicles. These pools, however, serve only very small parts of the total land area administered by the Forest Service; therefore, increasing requirements for passenger car transportation in several areas cannot be fully met except through purchase of additional units for the Forest Service fleet. None of the additions requested will be assigned to areas served or scheduled to be served by interagency motor pools.

Additions are financed from program funds in direct relationship to the anticipated use of the equipment. Distribution of costs to appropriations is based on analysis of use of the equipment fleet for the past 3 years and the estimated use for the budget year.

AIRCRAFT

REPLACEMENT AND ADDITION OF AIRCRAFT

The 1965 estimates propose replacement of six aircraft by purchase and four by transfer from other agencies as available. The Forest Service currently has 60 aircraft:

| | |
|---|---|
| Single engine reconnaissance and transport airplanes | 12 |
| Light twin-engine reconnaissance and transport airplanes | 4 |
| Medium and heavy cargo and transport airplanes (10 medium, 6 heavy) | 16 |
| T-34B lead airplanes (2-place scout) | 25 |
| Forest spray airplanes (Stearman and TBM) | 2 |
| Helicopter | 1 |

The single and light twin-engine reconnaissance and transport aircraft are used primarily to transport firefighters, smokejumpers, administrative personnel, equipment, and supplies to remote and inaccessible areas where commercial service is inadequate, or not available for detection and suppression of forest fires. They are also used to locate and survey timber stand and vegetation conditions, such as insect infestations, blowdown, diseased areas, undesirable species, and to appraise resources and damage, and evaluate effectiveness of control.

The T-34B "lead" airplanes are used primarly by air tanker bosses to direct and control the dropping of fire retardants on forest fires by more than 200 tanker aircraft usually contracted from private owners.

The helicopter is used for training forest personnel in tactical use of helicopters and experimental development of techniques and equipment for direct tactical suppression of forest fires.

The six replacements requested will be single and light twin-engine airplanes. They will be utility airplanes that may be used for several purposes, such as lead planes for air tankers, small paracargo dropping, reconnaissance, and transporting freight and passengers. These will be new standard manufactured airplanes to upgrade old surplus T-34B's and single-engine reconnaissance airplanes which have reached an age in total number of flying hours where it is uneconomical to overhaul or modernize them to meet civil airworthiness requirements. These replacements will provide a more effective operation, with a wider safety margin. Forest Service aircraft are operated to a large extent over a rough, mountainous terrain where landing fields are poor and few. It is especially important that these aircraft be maintained for maximum performance and dependability to provide an adequate standard of safety.

Other aircraft currently in use may be replaced as newer and more suitable models and types become available from military services as excess property. They would be obtained on transfer without reimbursement and would not increase the fleet beyond 60 aircraft. When aircraft are partially or completely destroyed in a crash accident they may be replaced out of the appropriate available funds. The majority of current Forest Service aircraft was manufactured

during World War II, and obtained from military surplus. Most of these planes have nearly reached their limit of useful age. The military services now have aircraft which have more potential suitability for Forest Service work that may become surplus in the near future. At present one medium and a large cargo and personnel transport have reached the limit of economical usefulness.

ROADS AND TRAILS FOR STATES, NATIONAL FORESTS FUND

| | |
|---|---|
| Appropriation, 1964 and base for 1965 | $12,000,882 |
| Budget estimate, 1965 | 12,400,000 |
| Increase (due to an estimated increase in national forest receipts in fiscal year 1964) | +399,118 |

The permanent appropriation of 10 percent of national forest receipts pursuant to the act of March 4, 1913 (16 U.S.C. 501) is transferred to and merged with the annual appropriation for forest roads and trails. The explanation of the use of these funds is included in the justification for that appropriation item.

The increase of $399,118 results from an estimated increase in receipts from sale of timber for fiscal year 1964.

EXPENSES, BRUSH DISPOSAL

| | |
|---|---|
| Appropriation, 1964 and base for 1965 | $9,000,000 |
| Budget estimate, 1965 | 9,200,000 |
| Increase | +200,000 |

*Project statement*

| Project | 1963 | 1964 (estimated) | Increase or decrease | 1965 (estimated) |
|---|---|---|---|---|
| Brush disposal | $7,695,991 | $9,000,000 | +$200,000 | $9,200,000 |
| Unobligated balance brought forward | −6,569,022 | −7,630,984 | | −7,630,984 |
| Unobligated balance carried forward | 7,630,984 | 7,630,984 | | 7,630,984 |
| Total increased pay costs on second step of pay increase (Public Law 87-793) | | (80,000) | (+100,000) | (180,000) |
| Total available or estimate | 8,757,953 | 9,000,000 | +200,000 | 9,200,000 |

The increase of $200,000 reflects the additional work to be done as a result of the 11-percent increase in timber harvest which was 10 billion board feet during fiscal year 1963.

Timber cutting normally increases the fire hazard because of dry fuel increase in the form of logging slash. This slash may also contribute to the buildup of insect populations, increase certain disease infestations, and cause damage to stream channels.

National forest timber sale contracts require treatment of debris from cutting operations or deposit of funds to pay for the work. When economical and expedient the work is performed by the timber purchaser. If it is not feasible for the purchaser to do the work, it is done by the Government using deposits made by the timber purchaser to cover costs of the work as authorized under section 6 of the act of April 24, 1960 (16 U.S.C. 490).

The effect of timber cutting and the manner of treating slash vary widely among regions. In the three eastern regions, volume cut per acre is relatively low, utilization is high, and generally humid atmospheric conditions result in rapid decomposition of debris so little slash disposal work is necessary. An exception occurs in some sales where a heavier cut per acre is made, such as the jack pine stands of Minnesota. In such areas, slash is broken up and mixed with mineral soil by disking with heavy equipment. This reduces the hazard and provides a good seedbed to aid regeneration. Treatment of slash to prevent insect epidemics is sometimes necessary in these areas.

In contrast, the cost of slash abatement on most sale areas of the West is high, High volumes per acre generally produce heavy slash. Long dry periods with much lightning and man-caused fire risk result in extremely hazardous fire potential. The warm, humid condition necessary for rapid slash deterioration seldom occurs so more intense slash disposal is required. Treatment varies

greatly with different methods of cutting. Clearcut areas are broadcast burned. In selectively cut areas, debris may be piled for burning over the whole area or in strips which serve as firebreaks.

While slash disposal follows general prescriptions within regions, individual needs of each sale offering are planned and appraised prior to advertisement and appropriate specific requirements are incorporated into each timber sale contract. In each instance the method used is the one which will attain adequate protection of the area at the least expense. In some instances adequate protection from fire is attained by providing additional protection until the slash hazard reverts to near normal. Logging debris which may move into watercourses under these conditions must be removed. Greater intensity of fire protection for several years and occasional stream clearance may be less costly than complete slash disposal immediately after cutting. In such cases brush disposal funds are used to provide the needed manpower and facilities.

## Forest Fire Prevention

| | |
|---|---|
| Appropriation, 1964 and base for 1965 | $45,000 |
| Budget estimate, 1965 | 25,000 |
| Decrease | −20,000 |

*Project statement*

| Project | 1963 | 1964 (estimated) | Increase | 1965 (estimated) |
|---|---|---|---|---|
| Forest fire prevention | $12,543 | $30,000 | | $30,000 |
| Unobligated balance brought forward | −1,800 | −16,900 | −$15,000 | −31,900 |
| Unobligated balance carried forward | 16,900 | 31,900 | −5,000 | 26,900 |
| Total available or estimate | 27,643 | 45,000 | −20,000 | 25,000 |

The decrease of $20,000 reflects the change in anticipated revenues for this year. The large increase in receipts in 1964 was due to a major sales program that was a one-time transaction. The actual obligations to be incurred in 1964 and 1965 will be at approximately the same level ($30,000).

The Smokey Bear licensing program is an important part of the cooperative forest fire prevention campaign which has been in effect for 22 years. The campaign itself has been conducted each year since 1942 as a cooperative project of the State foresters and the Forest Service, U.S. Department of Agriculture, and is a public service program of the Advertising Council. The campaign utilizes the free public service resources of the various national advertising channels such as car cards, poster display systems, radio and television networks, and magazine and newspaper allocation plans in developing public cooperation in the prevention of man-caused forest fires. Since 1945, this campaign has been built around Smokey Bear who has become recognized and accepted by the public as a nationwide symbol of forest fire prevention.

Under authorization of Public Law 359 of the 82d Congress, the Secretary of Agriculture has issued rules and regulations governing the licensing program. These licenses specify payment of royalties (usually 5 percent) and set up certain controls for administering the program and collecting the royalties including advance deposits to protect the Government's interest. Such collections, along with appropriated funds, are used to finance the cooperative forest fire prevention campaign.

The licensing program provides about one-tenth of the total funds required for the cooperative forest fire prevention program.

The purpose of the project is public education on the need for the prevention of man-caused wildfires on all the Nation's forests and rangelands. Its goal is the further reduction of man-caused forest fires on all ownerships to the point where their impact on natural resource management programs is negligible.

This project is accomplishing its purpose in two ways:

1. By the dissemination to the public of Smokey Bear's forest fire prevention messages on commercial products licensed by the Chief of the Forest Service.

2. By support of the Smokey Bear Junior Forest Rangers and of the Smokey Bear Awards program through the contribution of fees and royalties by licensees.

Commercial support for the Smokey Bear program is increasing. Receipts have risen about 35 percent in each of the past 2 fiscal years. Retail sales volume

of Smokey Bear items for fiscal year 1963 is estimated at $1,100,000 returning approximately $27,600 to the program.

RESTORATION OF FOREST LANDS AND IMPROVEMENTS

| | |
|---|---|
| Appropriation, 1964 and base for 1965 | $100,000 |
| Budget estimate, 1965 | 100,000 |

*Project statement*

| Project | 1963 | 1964 (estimated) | Increase or decrease | 1965 (estimated) |
|---|---|---|---|---|
| Restoration of forest lands and improvements | $6,849 | $121,480 | −$21,480 | $100,000 |
| Unobligated balance brought forward | −7,400 | −21,480 | 21,480 | |
| Unobligated balance carried forward | 21,480 | | | |
| Total increased pay costs on second step of pay increase (Public Law 87-793) | (-----) | (1,000) | (+1,200) | (2,200) |
| Total available or estimate | 20,929 | 100,000 | | 100,000 |

Recoveries from cash bonds or forfeitures under surety bonds by permittees or timber purchasers, who fail to complete performance, are used to complete improvement, protection, or rehabilitation work on lands under Forest Service administration. Funds received as settlement of a claim are used for improvement, protection, or rehabilitation made necessary by the action which led to the cash settlement (act of June 20, 1958, 16 U.S.C. 579c).

PAYMENT TO MINNESOTA (COOK, LAKE, AND ST. LOUIS COUNTIES) FROM THE NATIONAL FORESTS FUND

| | |
|---|---|
| Appropriation, 1964 and base for 1965 | $130,986 |
| Budget estimate, 1965 | 133,000 |
| Increase | +2,014 |

*Project statement*

| Project | 1963 | 1964 (estimated) | Increase | 1965 (estimated) |
|---|---|---|---|---|
| Payment to Minnesota (total available or estimate) | $125,432 | $130,986 | +$2,014 | $133,000 |

The act of June 22, 1948, as amended (16 U.S.C. 577c–577h) provides that the Secretary of the Treasury, upon certification of the Secretary of Agriculture, shall pay to the State of Minnesota at the close of each fiscal year an amount equivalent to three-fourths of 1 percent of the fair appraised value of certain national forest lands in the counties of Cook, Lake, and St. Louis situated within the Superior National Forest. The act further provides that payment to the State shall be distributed to each of these counties in conformity with the fair appraised value of such national forest lands in each county.

PAYMENTS TO COUNTIES, NATIONAL GRASSLANDS

| | |
|---|---|
| Appropriation, 1964 and base for 1965 | $437,500 |
| Budget estimate, 1965 | 450,000 |
| Increase (due to an estimated increase in national grasslands receipts for fiscal year 1964) | +12,500 |

*Project statement*

| Project | 1963 | 1964 (estimated) | Increase | 1965 (estimated) |
|---|---|---|---|---|
| Payments to counties, national grasslands (total available or estimate) | $389,506 | $437,500 | +$12,500 | $450,000 |

At the end of each calendar year, 25 percent of the revenues from the use of submarginal lands are paid to counties under the provisions of title III of the Bankhead-Jones Farm Tenant Act, approved July 22, 1937 (7 U.S.C. 1012).

PAYMENTS TO SCHOOL FUNDS, ARIZONA AND NEW MEXICO, ACT OF JUNE 20, 1910

| | |
|---|---|
| Appropriation, 1964, and base for 1965 | $100,413 |
| Budget estimate, 1965 | 110,000 |
| Increase (due to an estimated increase in national forest receipts for fiscal year 1964) | +9,587 |

*Project statement*

| Project | 1963 | 1964 (estimated) | Increase | 1965 (estimated) |
|---|---|---|---|---|
| Payments to school funds (total available or estimate) | $80,462 | $100,413 | +$9,587 | $110,000 |

Under provisions of the act of June 20, 1910 (36 Stat. 562, 573) certain areas within national forests were granted to the States for school purposes. The percentage that these lands are of the total national forest area within the State is used in determining payments to the States. The receipts from all national forest land within the State are used as the basis for applying the percentage. For example, if total receipts for the State are $100,000 and if 10 percent of lands are in the "granted for school purposes" category, the payment to the State would be $10,000. The amounts so paid are deducted from the net receipts before computing the 25-percent payments to States.

As soon after the close of the fiscal year as the receipts from national forests and the area of school lands in the States of Arizona and New Mexico are determined, the payments are made to the States. Estimated payments in fiscal year 1964 to Arizona will be $100,033 and to New Mexico $380.

PAYMENTS TO STATES, NATIONAL FORESTS FUND

| | |
|---|---|
| Appropriation, 1964, and base for 1965 | $29,993,959 |
| Budget estimate, 1965 | 31,100,000 |
| Increase (due to an estimated increase in national forest receipts for fiscal year 1964) | +1,106,041 |

*Project statement*

| Project | 1963 | 1964 (estimated) | Increase | 1965 (estimated) |
|---|---|---|---|---|
| Payments to States (total available or estimate) | $27,235,140 | $29,993,959 | +$1,106,041 | $31,100,000 |

The act of May 23, 1908, as amended (16 U.S.C. 500) requires, with a few exceptions, that 25 percent of all money received from the national forests during any fiscal year be paid to the States in which the forests are located, for the benefit of public schools and public roads of the county or counties in which such national forests are situated. The amount of this appropriation varies each year in direct proportion to national forest receipts during the previous fiscal year.

The amounts set aside from receipts collected for the sale of national forest timber, grazing and special use permits, etc., before the 25 percent is applied are listed below:

1. Payment to the State of Minnesota covering certain national forest lands in the counties of Cook, Lake, and St. Louis situated within the Superior National Forest is made under the terms of the act of June 22, 1948, Public Law 733. Receipts collected from the areas covered by this act are excluded when the 25-percent payment to the State of Minnesota is computed.

2. For lands in certain counties in Utah, Nevada, and California, the States receive 25 percent of receipts only after funds, if made available by Congress,

have been set aside for the acquisition of national forest lands within the specified national forests under the terms of special acts authorizing appropriations from forest receipts for this purpose.

3. Payments to the States of Arizona and New Mexico under the provisions of the act of June 20, 1910, of shares of the gross receipts from the national forests in those States which are proportionate to the areas of land granted to the States for school purposes within the national forests.

## Working Capital Fund, Forest Service

This fund finances on a reimbursable basis various services such as repairing and replacing equipment, including aircraft, stocking and issuing supplies, operation of subsistence camps, operation of photographic and reproduction facilities, and tree nurseries in support of programs of the Forest Service (16 U.S.C. 579b, as amended). These service operations serve programs of fire protection, timber utilization, construction and maintenance of roads and other improvements, reforestation, grazing, watershed, forest and forest products research, and kindred conservation activities of the Forest Service, including cooperative assistance with other Federal agencies, States, counties, and individuals engaged in the same objectives.

### OPERATING RESULTS AND FINANCIAL CONDITION

Government investment in the fund as of June 30, 1963, including donated assets and retained earnings for fiscal year 1963, is $28,574,000. By the end of 1965 the investment is anticipated to be $35,349,000, an increase of $6,775,000, which represents estimated earnings and donations during 1964 and 1965.

Receipts, nonoperating income, and retained earnings include an estimated $2,809,000 as of June 30, 1965, identified as "Income provision for increased cost of equipment replacements" to be used only for financing the increased cost of equipment replacement; i.e., the difference between the cost of the replacement unit and the cost at time of acquisition of the unit being replaced. This increased cost is due to inflation and model improvement, and must be financed if the fleet strength is to be maintained and not depleted through the gradual attrition of price increases for replacements. The earnings for the provision for increased cost of replacements are derived from a factor which is included for this purpose in rental rates charged to program appropriations for equipment use and credited to the working capital fund.

Retained earnings as of June 30, 1965, will total an estimated $8,019,000 which will consist of $2,426,000 gain on sale of equipment, $2,784,000 profit from operations, and $2,809,000 for provision for increased cost of replacement of equipment. Retained earnings have been applied toward increased cost of equipment replacements, purchase of fleet additions, and to furnish adequate working capital.

## Cooperative Work, Forest Service (Trust Fund)

Contributions are received from cooperators, including counties, States, timber sale operators, individuals, and associations, and are expended by the Forest Service in accordance with the terms of the applicable cooperative agreements. The work consists of protection and improvement of the national forests, work performed for national forest users, and forest investigations and protection, reforestation, and administration of private forest lands.

The major programs conducted under the account "Cooperative work, Forest Service" are described below in terms of the projects reflected in the statement at the end of this section.

*1. Construction and maintenance of road and trails, and*

*2. Construction and maintenance of other improvements*

Under the acts of June 30, 1914 (16 U.S.C. 498), and March 3, 1925, and April 24, 1950 (16 U.S.C. 572), deposits for cooperative work are accepted from State and local government agencies, associations, Federal timber purchasers, and others for the construction and maintenance of roads, trails, and other improvements and for performing work which is the national forest users' responsibility, this method of performance of the work being of mutual benefit or of benefit to the public at large. Cooperative deposits received for wildlife habitat improvement for States from their hunting and fishing fees are included in this activity.

*3. Protection of national forests and adjacent private lands*

The act of June 30, 1914 (16 U.S.C. 498), authorizes the acceptance of deposits for the protection of the national forests and the act of March 3, 1925, as amended by section 5, act of April 24, 1950 (16 U.S.C. 572), authorizes the acceptance of contributions for the protection of private lands in or near the national forests. The major portion of the obligations is for the protection of private lands from fire. This arrangement helps both parties since there are millions of acres of private forest land intermingled with Federal ownership on the national forests. The lands in private ownership are usually in small tracts. It would be uneconomical for the owner to set up a fire control organization for the protection of his land. The advantage to the Government is that in many cases it would be necessary to suppress the fires on the private land without reimbursement in order to protect the adjoining Federal land.

*4. Sale area betterment (including reforestation)*

Section 3 of the act of June 9, 1930 (16 U.S.C. 576b), provides for deposits of funds by timber sale purchasers to cover the cost of reforestation and special cultural measures to improve the future stand of timber on the areas cutover by the purchaser. Deposits in fiscal year 1963 under this authorization totaled $18.6 million. Fiscal year 1963 accomplishments under this program are reported under the "Forest land management" subappropriation along with accomplishments for reforestation and stand improvement for that subappropriation.

*5. Scaling*

Under provisions of the act of April 24, 1950 (16 U.S.C. 572), and of section 210 of the act of September 21, 1944 (16 U.S.C. 572a), acceptance of deposits from timber purchasers for cooperative scaling service is authorized. Such arrangements are established only when requested by the operator and when the operator pays the extra cost of such services.

Subsection (c), section 5, act of April 24, 1950 (16 U.S.C. 572), provides broad authority to reimburse appropriations initially charged for expenses for cooperative services performed. The justification given in requesting this authority in the legislative history in House Report 1189 and Senate Report 1069, 81st Congress, is limited to emergency situations. It would be convenient and economical to use this broad authority to furnish cooperative scaling services to timber purchasers by charging appropriations available for this type of work. Collections would be made later from the purchaser whenever he has arranged to pay for stumpage and other related charges after such charges have been determined. Comptroller General's decision B–150466, dated January 14, 1963, clarified the authority in section 5 of the act of April 24, 1950 (64 Stat. 82; 16 U.S.C. 572), to make collections in arrears for elective cooperative deposits related to timber sales applicable to payment bond procedures. In summary, the Comptroller General stated that he would have no legal objection to the Forest Service rendering services authorized by section 5 on a reimbursable basis in instances where (1) it has been administratively determined to be advantageous to the Government, and (2) necessary precautions have been taken to insure the recovery of all costs involved, including payment bond procedures: *Provided:* (1) Deposits to appropriations do not exceed the amount of costs incurred, and (2) appropriate congressional committees be advised of our plans to use section 5c in situations other than the emergencies contemplated by the Congress at the time the law was enacted. Beginning in fiscal year 1964, the Forest Service plans to use this procedure when appropriate.

*6. Research investigations*

The acts of June 30, 1914 (16 U.S.C. 498), and May 22, 1928 (16 U.S.C. 581i–1), authorize the acceptance of deposits for forestry research. Deposits are received from State and other public agencies, and from industrial, association, and other private agencies to finance research projects of mutual interest and benefit to both parties. The deposits may be made either in a single sum or on a continuing basis, and may either partially or wholly cover the cost of the research. The cooperative research projects may involve any aspect of forestry and vary widely as to scope and duration. A very common example of such cooperation is for a State to make a deposit to the cooperative work fund in order to intensify or to speed up completion of a comprehensive survey of the forest resources of the State. Other examples are State contributions toward forest fire research. The results of such cooperative investigations are made available to the general public as well as to the depositor.

*7. Administration of private lands*

The act of March 3, 1925, as amended by section 5, act of April 24, 1950 (16 U.S.C. 572), authorizes the acceptance of contributions for the management of private lands. These contributions are made by private owners having land intermingled with or adjacent to national forests who wish these lands managed in accordance with good forest management practices. Their holdings are usually too small to warrant the employment of professional foresters to administer such tracts. The advantages to the Government include the avoidance of possible high fire hazard areas resulting from improper cutting practices, the elimination of the necessity of precisely marking the boundaries of the private land, and additional private forest land handled under proper forest practices.

*8. Reforestation (private lands)*

The act of March 3, 1925, as amended by section 5, act of April 24, 1950 (16 U.S.C. 572), authorizes the acceptance of contributions for reforestation of private lands situated within or near a national forest. This work is limited to areas of private land within a planting project on the national forests or to areas in which certain civic and other public-spirited organizations have taken an interest.

*9. Statement on utilization of funds*

Following is a statement of funds received and obligated and balances available by major activities:

*Cooperative work, Forest Service trust fund*

| Project | Balance available, June 30, 1962 | Actual, fiscal year 1963 | | | Estimate, fiscal year 1964 | | | Estimate, fiscal year 1965 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Funds received | Obligations | Balance | Funds received | Obligations | Balance | Funds received | Obligations | Balance |
| 1. Construction and maintenance of roads and trails | $793,570 | $1,513,841 | $1,435,582 | $871,829 | $1,500,000 | $1,500,000 | $871,829 | $1,400,000 | $1,450,000 | $821,829 |
| 2. Construction and maintenance of other improvements [1] | 383,842 | 552,851 | 413,796 | 522,897 | 550,000 | 550,000 | 522,897 | 450,000 | 500,000 | 472,897 |
| 3. Protection on national forests and adjacent private land: | | | | | | | | | | |
| (a) Fire | 408,213 | 1,870,220 | 1,812,244 | 466,189 | 1,900,000 | 1,900,000 | 466,189 | 1,900,000 | 1,900,000 | 466,189 |
| (b) Other | 1,012,834 | 1,328,032 | 1,136,806 | 1,204,060 | 1,350,000 | 1,350,000 | 1,204,060 | 1,200,000 | 1,250,000 | 1,154,060 |
| 4. Sale area betterment on national forest lands (including reforestation) | 20,098,755 | 18,609,957 | 14,233,184 | 24,475,528 | 20,000,000 | 16,500,000 | 27,975,528 | 20,200,000 | 16,000,000 | 32,175,528 |
| 5. Scaling of timber | 234,338 | 742,729 | 746,087 | 230,980 | 800,000 | 800,000 | 230,980 | 750,000 | 750,000 | 230,980 |
| 6. Research investigations | 362,930 | 955,396 | 972,056 | 346,270 | 1,000,000 | 1,000,000 | 346,270 | 950,000 | 950,000 | 346,270 |
| 7. Administration of private lands | 13,317 | 45,374 | 43,290 | 15,401 | 50,000 | 50,000 | 15,401 | 40,000 | 40,000 | 15,401 |
| 8. Reforestation (private lands) | 100,724 | 17,784 | 26,369 | 92,139 | 25,000 | 30,000 | 87,139 | 20,000 | 30,000 | 77,139 |
| Subtotal | 23,408,523 | [2] 25,636,184 | 20,819,414 | 28,225,293 | 27,175,000 | 23,680,000 | 31,720,293 | 26,910,000 | 22,870,000 | 35,760,293 |
| Advanced to "Forest protection and utilization" for fighting forest fires [3] | | | 1,400,000 | −1,400,000 | | −1,400,000 | | | | |
| Total | 23,408,523 | [2] 25,636,184 | 22,219,414 | 26,825,293 | 27,175,000 | 22,280,000 | 31,720,293 | 26,910,000 | 22,870,000 | 35,760,293 |

[1] Includes approximately $130,000 State hunting and fishing cooperative deposits.
[2] Includes $1,175 reimbursed to appropriation.
[3] Reflects obligations in 1963 for fighting forest fires which were recovered from the 1964 appropriation for fighting forest fires.

NOTE.—Balances carried forward are due primarily to necessity of deferring work for which funds are deposited until the most practicable time. For instance, funds for sale area betterment are received in advance of cutting, but work cannot be started until cutting operations are completed. The timelag sometimes extends for several years, depending on the amount of preparatory work required in the sale area, weather conditions, etc.

Above obligations for 1963 include:

| | |
|---|---|
| (1) Transfers to national forests fund of earned sale area betterment deposits in excess of obligations for sale area betterment work | $252,753 |
| (2) Refunds to cooperators | 125,724 |
| Total | 378,477 |

Chairman HAYDEN. Are there any questions?

GRAZING PERMITS

Senator BIBLE. Might I ask just a couple, Mr. Chairman? On page 23 of your justifications, you get into one of your very important functions and that is the management of your range resources and your granting of permits for the grazing of livestock. This is one area where I receive many, many complaints about the cutback in allotments and permits.

First, simply so that I am properly oriented, in reading from page 23, Mr. Cliff, it says, about the sixth line down from the top:

To achieve this objective in addition to recurrent workload associated with administration of about 11,400 separate allotments involving over 22,000 permits, special attention must be given.

and so forth. Dropping down to the bottom of the page, you say:

In addition to the 38,306 permits covering the grazing of livestock under paid and free permits.

What is the difference between the item of 22,000 and the 38,306?

Mr. CLIFF. Well, the 22,000 permits, Senator Bible, refer to those permits that are issued to establish permittees for which they pay fees. In addition to that, we issue free permits for small numbers of livestock to local residents. This is not a very big item from the standpoint of numbers of livestock, but there is a large number of permits in this category. There is a provision in the regulations for free use to local residents.

PAID PERMITS

Senator BIBLE. So the 22,000 permits are paid permits?

Mr. CLIFF. Yes. Then, in addition, we issue what we call private land permits. There is a considerable amount of private land intermingled with the national forest land and there is a procedure whereby the private landowner can waive the grazing privileges on his private land in exchange for comparable privileges on national forest lands. We have several thousand of these permits which is a method devised for coordinating the use of private land and public land.

CUTBACK ON ALLOTMENTS AND PERMITS

Senator BIBLE. I appreciate the clarification. You indicate that you have permits outstanding for some 6 million livestock. How would that compare with 1961 and 1960 and possibly for a 5-year range? Could that be supplied for the record?

The purpose of my question is to determine how severe a cutback you have made on allotments and permits.

Mr. CLIFF. We will be glad to supply that for the record. I think the record will show that permitted livestock use has leveled off and has become pretty well stabilized. We are actually increasing permits in some areas where we have been able to restore the range through range improvement and better range management. This is one of the efforts that we are trying to make, to develop the full potential of these rangelands and to get the most out of them under good sound management programs.

### RANGE IMPROVEMENTS AND REVEGETATION

We are getting good cooperation from the industry generally. We are spending, as you know, rather substantial sums for range improvements and revegetation. And in many places the downward trend in grazing use has leveled off and actually the curve has tipped up. We still have some areas, however, where the situation is not good and where we are making some additional adjustments. We tried to combine that with a development program to minimize the adjustments to get on a program so that we can look forward to an increase in grazing where it can be supported.

Senator BIBLE. I never hear from the permittees where you increase their allotment. But I do hear from them when you decrease their allotment. You can supply that information for the record.

(The information referred to follows:)

*Animal months permitted to graze on all Forest Service administered lands*

| | Cattle and horses animal months | Sheep and goats animal months | Total animal unit months[1] |
|---|---|---|---|
| 1962 | 7,079,437 | 7,383,640 | 8,556,165 |
| 1961 | 7,119,747 | 7,702,319 | 8,660,211 |
| 1960 | 7,190,880 | 7,913,263 | 8,773,533 |
| 1959 | 7,201,081 | 8,138,012 | 8,828,683 |
| 1958 | 7,652,545 | 8,539,158 | 9,360,376 |
| Decrease in 1962 over 1958 | −573,108 | −1,155,518 | −804,211 |
| Percent decrease in 1962 over 1958 | −7 | −14 | −9 |

[1] An animal unit month represents 1 cow for 1 month. Sheep months have been converted to animal months using a ratio of 5 sheep equals 1 animal unit month.

### DYE MARKING OR TAGGING FOR TRESPASS CONTROL

Senator BIBLE. We have a troublesome problem in Elko County. I understand you are painting the cattle up in Elko County and I suppose the purpose is to find whether they have permits. There has been some criticism of that and I would like to have your comment.

Mr. CLIFF. We have heard these complaints, too. The dye marking we are doing is rather extensively applied in many places in the West. We have had relatively few complaints. There have been some local complaints in a few places, and one is in Elko County. The purpose is to get control of trespass.

Senator BIBLE. It seems to me it is a reasonable program, but I want to know how to answer my complaints.

Mr. CLIFF. We have been in touch with the complainants and I think we are reaching a better position of understanding most all over. I attended the American National meeting at Memphis this last month and there was no complaint voiced there over our dye marking or our tagging for trespass control. Actually, it is in the interest of the permittee to control trespass, because if there is trespass on the range, which we cannot condone, the permittee is getting blamed for any condition of the range that develops as a result of this increased stocking by trespass livestock. We have a responsibility to control trespass. The dye marking is one device we have used to identify permitted livestock.

AMERICAN NATIONAL CATTLEMEN'S ASSOCIATION

Senator BIBLE. You said the American National at Memphis. Did you mean the American National Cattlemen's Association?

Mr. CLIFF. That is correct.

Senator BIBLE. Did they pass a resolution commending you in this field?

Mr. CLIFF. No, they did not pass a resolution condemning us, either.

Senator BIBLE. I realize you have a difficult problem there and I would say you are not without allies in this field, because the fish and game people think this is a wonderful thing you are doing. So this is one of the conflicts we have.

Chairman HAYDEN. Senator Mundt?

RESEARCH IN SOUTH DAKOTA

Senator MUNDT. Like the Senator from Nevada, I find these hearings are a wonderful place to get information to answer my mail and I have quite a little bit of correspondence, so I have more questions than usual. Some of the information you can simply supply to my office or for the record. I would like to have you send to my office, first of all, a rundown on forest research in South Dakota for fiscal years 1964 and 1965.

Mr. CLIFF. We will be glad to do that, Senator MUNDT.

GRAZING PERMITS IN SOUTH DAKOTA

Senator MUNDT. Second, does the grazing district out in Perkins County, S. Dak., come under the jurisdiction of the Forest Service?

Mr. CLIFF. Where is that?

Senator MUNDT. It is not really a forest county. It is in western South Dakota.

Mr. CLIFF. We have several national grasslands in South Dakota. One of them lies south of the Black Hills, adjoining the Indian reservation. One surrounds the Badlands.

Senator MUNDT. This is north of the Badlands.

Mr. CLIFF. Then, there is another one against the river near Fort Pierre and still another one up in the northwest corner near Lemmon.

Senator MUNDT. Lemmon is the biggest city in Perkins County. Maybe we had better just say this: Why do you not send me a record of the grazing districts you have in South Dakota and a report from your angle as whether the ranchers are happy with their grazing allotments. I have been getting some complaints which I have been led to believe deal with the Forest Service, and I am not sure.

Mr. CLIFF. We will be glad to do that, sir. I do not recall any recent correspondence or complaints from that area.

Senator MUNDT. You have a lot of different types of public domain land out there and it may be they are not even shooting at you. If you will send me that, then we will have it.

Mr. CLIFF. We will be glad to do it.

RANGE ALLOTMENT ANALYSIS

Senator MUNDT. On page 23 of your justifications, you discuss the range allotment analysis work. Could you give me a little bit more

detail on this and provide to my office the progress by States where you are doing the work?

Mr. CLIFF. We will be glad to do it and I will ask Mr. Greeley to respond to your question.

Mr. GREELEY. Senator Mundt, we can develop an approximation of development by States, but we may have a little difficulty getting precise figures in the time that would be necessary to get a response back.

Senator MUNDT. I do not want you to assume an astronomical load, but I would appreciate something to give me a sample picture.

Mr. GREELEY. This is an ongoing part of a program which we carry on all of the time. It is financed from a part of this appropriation, range resource, which is referred to as range management, and it is the means by which we obtain the basic system and the particular data on which we attempt to work out our plans and management and our programs for improvement.

(The information referred to follows:)

*Status and accomplishment of analysis by States (includes national forests, national grasslands, and land utilization projects)*

| State | Allotments, 1963, number | Allotment equivalents[1] complete | | Accomplishment, fiscal year 1964, (allotment equivalent) |
|---|---|---|---|---|
| | | June 30, 1963 | June 30, 1964 | |
| Arizona | 720 | 452 | 511 | 59 |
| California | 975 | 658 | 736 | 78 |
| Colorado | 1,685 | 1,452 | 1,467 | 15 |
| Idaho | 1,301 | 354 | 449 | 95 |
| Kansas | 69 | 62 | 64 | 2 |
| Missouri | 91 | 7 | 16 | 9 |
| Montana | 1,095 | 589 | 712 | 123 |
| Nebraska | 172 | 136 | 146 | 10 |
| Nevada | 343 | 55 | 77 | 22 |
| New Mexico | 648 | 426 | 436 | 10 |
| New York | 41 | 29 | 29 | 0 |
| North Dakota | 553 | 112 | 127 | 15 |
| Oregon | 621 | 418 | 471 | 53 |
| South Dakota | 524 | 383 | 410 | 27 |
| Texas | 521 | 67 | 182 | 115 |
| Utah | 751 | 243 | 311 | 68 |
| Washington | 210 | 156 | 167 | 11 |
| West Virginia | 38 | 19 | 23 | 4 |
| Wyoming | 762 | 486 | 498 | 12 |
| Subtotal | 11,120 | 6,104 | 6,832 | 728 |
| Southern States | 304 | 120 | 120 | (2) |
| Total | 11,424 | 6,224 | 6,952 | 728 |

[1] 1 allotment equivalent represents all of the work needed to do a complete job of range inventory or analysis and management planning on 1 grazing allotment.

[2] Does not include rangework directed at control of livestock grazing in Southern States including east Texas.

## MARKETING RESEARCH

Senator MUNDT. On page 93 I read in your justification your discussion of the marketing research which has been outlining opportunities for increased efficiency in sawmills. I have a lot of correspondence from a number of small sawmill operators out in the Black Hills of South Dakota where they process mostly ponderosa pine and I think such a study as you outline would be most helpful and valuable to our operators.

I would think it could be undertaken at a small cost. Could you provide for the record, with a copy to my office, your thoughts on the

feasibility of doing this type of research and with an estimate of the cost involved?

Mr. CLIFF. We will be glad to do that, Senator Mundt.

(The information referred to follows:)

PROBLEMS WITH THE BLACK HILLS TIMBER INDUSTRIES

Processing and marketing problems associated with the timber industries of the Black Hills have received some study in the past few years. For example, sawing practices in relation to log grades have been studied with the view of finding how to raise the quality of the end product. Supplies of wood residues at sawmills, suitable for pulp chip production, have been determined. Studies of fencepost durability under different conditions of use are adding to the knowledge basic to an expanded post industry. The Forest Service believes its present research staff at Rapid City could explore further the opportunities to aid the timber industry by improving production practices and market outlets. This will be included in the Forest Service research program under the funds provided in the fiscal year 1965 budget.

Senator MUNDT. Do you agree with my hypothesis that this might be of real value to the operators?

Mr. CLIFF. We certainly do. There is a lot of room for improvement in sawmills and particularly the smaller mills.

COOPERATION IN FOREST FIRE CONTROL

Senator MUNDT. You know, we have had a lot of joint conferences with those operators out there and you have kept them alive but you have not kept them always happy. We want to keep them alive and happy if we can.

I notice your allocation for $47,000 for forest fire control in South Dakota in fiscal year 1964. Would this be the same for next year? You also point out that payments to the State have never exceeded the State and private funds expended. So are your funds adequate?

Mr. CLIFF. The States are spending several times the amount that the Forest Service is contributing. On page 101 of the justification, the tabulation indicates that the States, in fiscal year 1963 spent about $55 million, and the Federal Government is contributing $12.5 million so we are getting matched by over 4 to 1 by State contributions.

The States are way ahead of the requirements of the law. The law requires at least 50–50 matching. The authorization in the act would provide for up to $20 million of Federal funds as a top figure, and the appropriation is about $12.5 million. The States have been gradually increasing these contributions. I think they will continue to do this, but we feel that they need some additional help. The money asked for in this budget, a small amount for fire protection we think, would stimulate further State response.

Senator MUNDT. I have page 101 before me. Now would you say, on the basis of your experience, Mr. Cliff, that those funds are adequate to meet the contingency you have had out there?

FIRE PROTECTION

Mr. CLIFF. No. As a general proposition, we feel that the fire protection on State and private lands needs to be improved. I said, earlier, that there is still about 24 million acres that is not getting any organized protection and there is a considerable acreage that needs

more intensive protection. But this is about as far as we have been able to go under the present budget situation.

Senator MUNDT. Is the 1965 budget the same amount as 1964?

Mr. CLIFF. No, sir. There is a program increase in 1965 of $250,000 for this activity. So there will be some small increase to the various States. By the time we spread that to 50 States, it is not going to be very much to any 1 State, but it will be helpful and we think it will generate some additional activity.

### REHABILITATION OF BURN AT DEADWOOD, S. DAK.

Senator MUNDT. We have been questioned about that and particularly that terribly bad fire around Deadwood. Could I get a little report from you on what has been done to rehabilitate the devastated area around Deadwood?

Mr. CLIFF. Yes, sir. We will do that, because that is one project we have been proud of and we will be glad to supply that for the record.

(The information referred to follows:)

### HIGHLIGHT STATEMENT

The Deadwood forest fire of September 8, 1959, burned 4,500 acres on the Black Hills National Forest in South Dakota. By use of funds included in the first appropriation for burn rehabilitation made available through the interest of the Senate Appropriations Committee, this burn has been completely treated. Emergency watershed restoration work was done to prevent possible downstream flood damage and to protect and restore site productivity.

Thirty-one miles of contour ditches were installed on 430 acres of critical slopes on national forest land. Nine hundred and seventy-five acres of national forest land were seeded with legumes and grasses. Fire lines and fire roads were treated to prevent soil erosion. Trees were planted on 975 acres. Usable timber was salvaged from the burned area through an accelerated timber sale program.

### SEED PRODUCTION

Senator MUNDT. You have done a good job and the community is very pleased. I was interested in your discussion of seed planting on page 17. This reminded me of the many letters I have received from constituents in the Black Hills area who have been interested in the establishment of some type of tree plantation, or seed-production area, for improving ponderosa pine and other tree varieties which are adaptable to the Black Hills. Can you send to my office your thoughts as to the possibility of beginning this important work and an estimate as to what the cost might be and your evaluation of its need and desirability?

Mr. CLIFF. We will be glad to supply that, but right now I would like to make this comment. We are paying a lot of attention to getting seed from the better trees. We are pursuing several lines in accomplishing this. We are conducting research in genetics to improve the trees that we plant in the forest. But these seed-production areas you refer to are sort of an interim measure. We try to collect seed from some of the best trees that we have, instead of collecting our seed from any old scrub tree. We are trying to find the better stands and then we pick out the best trees in those stands and remove the other trees and protect these best trees for seed production. And we are collecting most of the seeds we use from the best trees in the seed production areas. It is this seed we

plant in the nurseries and then we plant the seedlings out in the forest. We have been moving ahead with this. I would be surprised if we do not already have some seed production areas in the Black Hills as we set ourselves an objective of getting these seed-production areas in all of our major forest areas . I will be glad to supply for the record just what we are doing in South Dakota. Eventually, we hope through research, to develop genetically superior trees and through our tree orchard program to even further improve on the native stock.

### Seed Research

Senator Mundt. Does your scientific research indicate pretty clearly that a seed from a good straight tree, produces that kind of progeny and a seed from a crooked tree gives a crooked tree?

Mr. Cliff. There are some strong indications that that is true. They do not always breed true, but some of the crooked trees and the forked trees show these inheritable characteristics. It is quite interesting.

Senator Mundt. You will be able to report on the Black Hills situation and give an answer to the question?

Mr. Greeley. Yes, sir.

(The information referred to follows:)

### Black Hills Seed Production Area

There are 2,000 acres of seed production area in process of development on the Black Hills National Forest in South Dakota. This will be the largest single seed production area on any national forest when development is completed. Only the best quality seed-producing trees will be retained in the area, and these are expected to produce better quality ponderosa pine seed than is presently available for reforestation purposes in the Black Hills.

### Jewel Cave Land Exchange

Senator Mundt. We had a National Park Service group here the other day and were discussing the new discoveries out in the Jewel Cave of some new formations. They told us they were working with you in an exchange of land agreements so that the part of the new cave which is in the Forest Service land might be traded to you for some part of the National Park Service lands which has beautiful trees on it but no caves under it. They said it was necessary to have an arriving at a meeting of minds. I would like to have that confirmed for the record.

Mr. Cliff. Mr. Nelson will respond to that.

Mr. Nelson. Some work has been done on that. This new area of caves is about three-fourths of a mile outside the present national monument and, as you say, the monument contains some lands not needed for park purposes. The Park Service would like to establish, we understand, a new entrance. We will work out something with them through agreement or adjustment in lands.

Senator Mundt. This you will be able to do without any legislative process?

Mr. Nelson. I am quite sure we will. At the present time the monument is under Forest Service ownership, but administered by the Park Service. I do not think there is any legislation needed.

BARK BEETLES

Senator MUNDT. I want to talk a little bit about bark beetles. Who is the bark beetles man?

Mr. CLIFF. Mr. Spillers.

Senator MUNDT. In my visitations out to the Black Hills forest area, and from my correspondence, I know that the infestation in South Dakota is a most serious threat to our valuable timber resources, including those in the Forest Service lands. So it is my hope that your allocation of money for control of beetle infestation is sufficient to do the eradication job in those areas under your control. And if it is not and this epidemic or disease is a threat, as I have been led to believe, then I want to do what I can, as a member of this committee, to see that you do have funds enough to wage a successful war against the bark beetle. Now, with that background, what can you tell me on the bark beetle?

Mr. SPILLERS. Thank you very much for your interest, Senator. We're also very much interested in all the lands that might be infested by the beetle, and not just national forest lands.

As you know, the Black Hills beetle loomed up with gigantic proportions last fall. We hope to jump on those things before they get out of hand.

CONTROL OF THE BEETLE

We are going to watch it very carefully. We will not know until later in the year just how big it is going to be, but, of course, we are going to work on it. That is typical of a number of these insects building up. We hope to be able to control them with funds we have, but if we cannot, it might be necessary to request consideration of supplemental financing.

Senator MUNDT. Is there anything you think we should do that you would like to see us do in this committee, in this bill, to better equip you to handle this pest?

Mr. SPILLERS. Senator, it is one of a number of forest pests that are confronting us throughout the Nation. We will not know the total picture of all the pest control situation until next fall. As I say, we are working on it now and we will work with our present funds up to the end of this fiscal year. But we do not know now what the financial needs for next year may be.

Senator MUNDT. I happen to feel when you get a pest of that kind, whether it is in hogs, or cattle, or valuable timber, or whatnot, the best way is to hit it hard before it gets too far ahead of you.

Mr. SPILLERS. Absolutely, Senator. It is just like a fire. If you jump on a small fire, you have a chance to put it out with less cost. That is what we are trying to do with the insects and disease epidemics.

COOPERATION WITH THE STATES ON CONTROL

You might be interested to know we are working on a cooperative arrangement with the States on this. We are allowing States that come in agreement with us, $15,000 a year. And a number of States have already signed up with that. We match up to $15,000 which provides up to $30,000 for that work. You have probably noted our table on page 46 where we have increased detection and evaluation expenditures from $1 to $1.7 million, because it is just in line with

your thought, Senator, the quicker we discover and jump on these outbreaks, the greater chance we have of suppressing them.

Senator MUNDT. I interpret your remarks, and correct me if I am wrong, to mean that you are asking for adequate funds to attack the bark beetle and other pests or diseases. Do you feel that you are asking for sufficient funds, but that you may feel it necessary to come back for a supplemental request if it gets worse than you anticipate?

Mr. SPILLERS. That is correct, Senator. We hope we will have enough funds but we do not know at this time of the year.

### REQUESTED FUNDS DEPEND ON COMPLETION OF SURVEYS

Mr. CLIFF. The problem is that we are talking about something that is subject to future developments. We will not know until the 1964 fall surveys are completed how much we will need for the total 1965 fiscal year.

Senator MUNDT. You are considering doing something, I hope, about the beetle, except just watching it, until next fall.

Mr. CLIFF. We are working on it right now with fiscal year 1964 money and we are going to do all we can in fiscal 1964 to attack this.

Any beetles not controlled this year will be emerging from the infested trees in early July and attacking new trees and we do not know how much this attack might spread or how successful our efforts are or will be until we can make the survey after the emergence of the beetles. So this is a very difficult area in which to make estimates.

The same thing is true of other insects. They move and we either are successful or need to take further steps. We are hoping that we will be able to put enough muscle in the Black Hills this spring to get the epidemic on the downhill pull. The surveys next fall, or after the summer flights, will give us a sizeup of just what the situation is for the balance of fiscal year 1965.

### CHRIST ON THE MOUNTAIN PROJECT

Senator MUNDT. I think my next question might be more directed toward Mr. Nelson. You will recall that the late Senator Francis Case, Congressman E. Y. Berry, and I have had a lot of contacts with you concerning a projected project in the northern Black Hills which we referred to as the "Christ on the Mountain" project. I think this is a matter of land transfer involved and I wonder if you could give me an up-to-date report on the status of that.

### LAND EXCHANGE

Mr. NELSON. The last report that we had indicated our field people had some meetings with the Home Stake Mining Co., who will furnish the lands, we were making an exchange for, and they resulted in an arrangement whereby they would have sufficient land on top of the mountain to carry on their project and we would have a good substantial exchange proposition. We do not have the exchange in this office at this time, but I understand that they did work it out with the company.

Senator MUNDT. It looks as though you are working out a meeting of the minds?

Mr. NELSON. Yes, sir.

Senator MUNDT. I talked with some of the officials of the company and it looks like they are giving good land.

Mr. NELSON. We will be getting more acreage than we will be giving them, but in considering values and the public good, we believe it will make a good substantial exchange.

Senator MUNDT. I guess this one goes to you, too?

You must be quite a horse trader out in that area. I am sure that you are familiar with the Mount Roosevelt area and the latest report I have from the regional office on its progress indicated that it is complicated by some 10-year-old unpatented mining claims. Now Mount Roosevelt was the first national memorial to Teddy Roosevelt and the citizens of our area are anxious to see that the land surrounding it is acquired. Teddy Roosevelt comes from our general area. We do not produce many Presidents in that area, and we are kind of proud of the fact that he came from there. What is the present status of that situation?

Mr. NELSON. Senator, that is one I do not have the information on here and I will have to supply it for you.

Senator MUNDT. I will give you a copy of the last letter and then you can write to me.

### RESEARCH CONSTRUCTION AT FORT COLLINS, COLO.

I have one question submitted by Senator Allott who asked me to propound some questions concerning a project in his State for which the committee included some moneys last year. He tells me that the architectural and engineering plans are being prepared for the Forest Research Laboratory at Colorado State and that the space situation at Colorado State is extremely tight and that the laboratory is a high priority project as far as the Forest Service is concerned. Now these are the questions he would like to have me propound:

#### ESTIMATED COST

What would you estimate would be the cost of this laboratory?

Mr. CLIFF. Dr. Harper would respond to that.

Dr. HARPER. The cost of that facility is $1,300,000. We have, as you may recall, planning funds in the 1964 budget of $79,000. As you indicated, the design of the building is going forward now. Plans and specifications will be completed by December of 1964.

Senator MUNDT. Is it true, as Senator Allott believes, that you would save almost a year in getting this vitally needed new building if the funds are available?

Dr. HARPER. That is substantially correct.

#### PLANNED CONSTRUCTION SCHEDULE

That country is very cold and the usual building season starts in the spring. This building will have its design completed by December so that there would be ample time to get the specifications and plans out to prospective builders and bids awarded by early spring.

Senator MUNDT. Then comes the inevitable question. That being true, what would be an optimum amount for this committee to make available for the next fiscal year, assuming we decided to expedite the progress in this manner in which you have outlined?

Dr. HARPER. Well, the estimated total cost is $1,300,000, Senator Mundt. We have now expended $79,000 for planning the structure. So the figure needed would be the $1,300,000 less the $79,000.

Senator MUNDT. Could it be done in phases, or would you need the whole lump sum?

Dr. HARPER. That might be possible, Senator Mundt, however we are very bad off on the campus of the university there at Fort Collins for space. I should mention that the $1,300,000 structure will not house all of our people that we now have in that location. We did go into that rather carefully in a study that we made about 2 years ago and it developed that this would be the first stage of a three-stage building construction program at this location.

Senator MUNDT. In other words, you particularly have to have this million odd-thousand dollars to make any reasonable alleviation of the problem?

Dr. HARPER. I would say, yes.

Senator MUNDT. That is all, Mr. Chairman.

### MOUNTAINEER UNIT, MONONGAHELA NATIONAL FOREST, W. VA.

Senator BYRD (presiding). Mr. Cliff, I would like to begin by asking some questions concerning the proposed Mountaineer Unit. I assume I would direct these questions to Mr. Nelson.

Mr. CLIFF. Yes, sir.

Senator BYRD. The year before last, Mr. Nelson, this committee included in the appropriations bill, $250,000, at my request, for the initiation of the proposed Mountaineer Unit in West Virginia. That money was stricken in conference with the House. Last year, again, the committee included $200,000, for the same purpose, and, again the item was stricken in conference with the House. It would be my desire, this year, when we mark up this bill, to again include this item if sufficient justification can be shown for it. For the purpose of the record, how many acres would be included in this new unit?

#### SIZE OF THE UNIT

Mr. NELSON. The study, Senator, that we prepared, at your request, on this Mountaineer Unit, showed that within the total boundaries that we set up, there would be 550,000 acres that would be desirable for purchase for the national forest. That does not include purchasing of all the lands. We feel very strongly that the good farmland should stay in farming. It is better for the economics of that part of the country. There is also some of the high productive timberland that we would feel would be desirable to be owned by industrial operators, provided they would be willing to operate it on good forest management basis.

The figure that you asked for was 550,000 and there has been more interest, I believe, Senator, since you asked for that study, by some of the industrial forestry people and some of that land is within the 550,000 acres that could be, we believe, owned by progressive industrial owners. I presume that the type of land that they could not possibly profitably own, and that should be under Federal ownership under any case, if it is going to help the economy, is at least 100,000 to 150,000 acres. That is the type of land that is now of a low production quality and the type of land that we do not believe that any

industrial owner could put the investment in and operate it to an advantage.

Senator BYRD. Am I to understand that the land to which you have just alluded, the 150,000 acres, would be included within the overall 550,000-acre program?

Mr. NELSON. Yes; that is correct.

YEARS TO COMPLETE FEDERAL PURCHASE

Senator BYRD. Over how many years would you envision this purchase?

Mr. NELSON. It would be very desirable to, once we started purchasing a new unit of that type, to do the purchasing within about 7 years. We feel that there is not much use in going with too small a program. I think I told you last year that we thought we should have at least, $200,000, in order to justify going in and starting this the first year.

Senator BYRD. Do you still stand by this figure of $200,000 for the first year?

Mr. NELSON. Yes; we do, Senator.

ESTIMATED COST

Senator BYRD. What would be the overall estimated cost of this unit?

Mr. NELSON. The overall estimated cost of the 550,000 acres was $12 million.

Now if industrial owners, purchasers, would come in and take on and buy some of that better land that could be logically in an industrial unit of that type, our total cost would be reduced proportionally.

Senator BYRD. The land which the industrial owners might purchase would come out of the 550,000 acres?

Mr. NELSON. Yes.

Senator BYRD. So that in the final analysis you might end up purchasing 400,000 acres, rather than 550,000 acres?

Mr. NELSON. It would depend on what they did. If they would actually come in and purchase all of the land there that they might logically operate as an industrial forest, it might reduce the total area that we would need to purchase to about 150,000 acres. There is at least 150,000 acres that we do not see any way an industrial operator could take that land on and justify it as an industrial proposition.

ACRES OF SUBMARGINAL PRODUCTION

Senator BYRD. So you foresee that there are 150,000 acres of the submarginal production type?

Mr. NELSON. That is correct.

Senator BYRD. Which, in any event, would not be desired by private forest owners, or industrial owners, and the entire unit might very well end up involving 550,000 acres, of which a hundred thousand acres or more may be owned by private industry?

Mr. NELSON. It could be possible. We do not see that it will, Senator. I was in this part of West Virginia last year and looked at a tract of land of some hundred-or-so-thousand acres immediately west of the Mountaineer Unit that is on the market and we have not seen

any of the industrial operators come in and buy that land. It is owned by a coal company that has closed down its operations. It is the same type of land.

Mr. CLIFF. Could I interject a comment?

Senator BYRD. Yes, Chief.

REHABILITATING ENTIRE AREA

Mr. CLIFF. Our study has indicated that this whole area is in poor condition and is not contributing to the economy. It has been cut over and has been abused. The whole area needs to be rehabilitated and put under management. If the industrial forestry people would do that, that would be fine. The extent to which the public should enter into it depends on the progress that these other people make. They say they are interested. Perhaps the time has come when they should act rather than merely object. Somebody ought to do something to that land to make it contribute to the economy of that part of the country. It needs it. A lot of it is good forest land that can produce continuous forest crops, but we need to get on with the job and either industry ought to do it on the acreage that seems susceptible for industrial investment or the Federal Government or the State government or somebody ought to do it, because it is a drag on the economy the way it is now.

Now the extent to which the public agencies should enter this would depend partly upon how serious the industry is about doing it.

PROCEDURE FOR ACQUIRING MOUNTAINEER UNIT

Senator BYRD. Chief Cliff, suppose we appropriated the $200,000 and you were to initiate the program. What would be the procedure whereby the private forest owners and industrial operators could come in and select their areas for purchase?

Mr. CLIFF. They are at liberty to go in at any time and negotiate the purchase of any land that may be for sale. If they really move in that direction, I think we would try to concentrate our efforts, first, on picking up those parts of the area which are less likely to move under firm private management, leaving them an opportunity to block up some industrial units. If they fail to do it, I think we would have to take another look and decide, then, where we would go from there.

INITIAL STEP

Senator BYRD. So your first step, if I understand it, would be to purchase those less-desirable lands which would not likely be of interest to the other groups?

Mr. CLIFF. I think that is our present thinking as long as the other groups are indicating some interest in doing something. If they do not do something positive and constructive, I think we would have to reassess the situation and decide what needed to be done from here on out.

AREA INVOLVES TIMBER-PRODUCING LAND

Senator BYRD. Is it true that much of the area involved is, in fact, prime timber-producing land?

Mr. CLIFF. It is my understanding that most of this land has produced good timber and that it is capable of producing high-

quality timber again. Of course, the land varies in quality as is the case in any mountain area. There is some that is less productive and some that is less amenable to management than others.

Senator BYRD. How much do you estimate the cost per acre of this land to be, Mr. Nelson?

Mr. NELSON. At the time the study was made it was estimated that the average cost per acre would run about $22. If we were to concentrate our purchase on the less productive lands, the cost per acre would be well under that figure.

LUMBER HARVESTED IN MONONGAHELA NATIONAL FOREST

Senator BYRD. All right. How many million feet of lumber was harvested last year in the Monongahela National Forest?

Mr. CLIFF. Do you have that, Art?

Mr. GREELEY. I am sorry, Senator, I do not have that figure. Could I supply that for the record?

Senator BYRD. Yes. Let us say you did not harvest the potential last year. What do you estimate you can harvest annually in that forest?

(The information referred to follows:)

TIMBER CUT AND SOLD

In fiscal year 1963 the annual allowable timber cut on the Monongahela National Forest was 68 million board feet. The actual cut during that year was 26.8 million board feet. In addition 35.5 million board feet of timber were sold. Total receipts from all sources were $561.959, including $438,993 derived from the sale of timber. In fiscal year 1960 total receipts from the Monongahela National Forest reached a record high of $684,513.

1960 TIMBER HARVESTED AND VALUE

Mr. GREELEY. I would like to have the opportunity to correct this for the record, sir, but our figures were for 1960 about 27 million board feet harvested and was valued at $442,000.

Senator BYRD. That was for fiscal 1960?

Mr. GREELEY. That is right.

We should be above that now.

Senator BYRD. What were the total U.S. Treasury receipts for that year?

Mr. CLIFF. From the Monongahela National Forest?

Senator BYRD. Yes, sir.

Mr. GREELEY. The dollar value of the timber that was harvested was $442,000. Those were the receipts for the Treasury. We should now be running above 27 million feet but this is the figure I need to verify it for you, sir.

Senator BYRD. It seems to me I recall a figure of somewhere above $600,000 for 1 year.

1963 TIMBER HARVEST VALUE

Mr. NELSON. Senator, I have the figure for 1963 and it is some $561,000 of revenue from timber, forest, minerals, and other uses.

Senator BYRD. Do you have the figures for other years previous?

Mr. NELSON. No, I do not.

Senator BYRD. Well, this $600,000 figure still remains with me. How much per acre, would you say, is being paid to the counties involved

Mr. NELSON. Last year it was 17.4 cents per acre.

LOSS OF TAX REVENUES BY FEDERAL PURCHASE

Senator BYRD. How would this compare to the tax revenues per acre if the land were not included in the forest?

Mr. NELSON. In the counties in the Monongahela National Forest, for example, Senator, it varies by counties, but the average is 12.9 cents. The low rate was 4.1 cents and the highest was 27 cents. Thus over half of the counties would have a tax return less than the current per acre return from the national forest.

Senator BYRD. Did you say in over half of them?

Mr. NELSON. In over half of them.

Senator BYRD. So, in the beginning, as I understand you, some of the counties would withstand a loss of tax revenues which would not equal the income gained from the forest lands.

Mr. NELSON. That could be true. It happens in some counties. Although, over the long period in the last 10 years, the receipts in the Monongahela National Forest have tripled and we expect that trend to continue. So with those counties it should not be over too long a period.

OPPOSITION TO PROPOSED MOUNTAINEER UNIT

Senator BYRD. Well, there seems to be some objection on the part of some of our people to this proposed unit. The objection may be engendered by industrial groups such as you have mentioned earlier. I would like to give to you, Mr. Nelson, one or more clippings from certain West Virginia newspapers which have reference to the proposed Mountaineer Unit. These news stories mention some of the objections that have been raised. I wish you would, for the record, respond to the objections raised in the news stories, so that in my effort to include the money this year, I might have the whole picture before me and be able to answer questions in conference which might emanate from the newspaper stories.

Mr. NELSON. We will be glad to do that, Senator.

(The information referred to follows:)

HIGHLIGHT STATEMENT

This opposition to the Mountaineer Unit expressed in the news clipping stems generally from forest industry's reaction to the President's Appalachian Regional Commission draft proposal to have the Federal Government acquire lands within the Mountaineer Unit for national forest purposes. The Governor's utilization committee objects to large areas going into Federal ownership where private industry could manage these lands profitably. The President's Appalachian Regional Commission generally agreed with this and it is understood the proposed bill will probably provide that the Federal Government acquire those lands for national forest purposes that are primarily depleted or unproductive.

These criteria would reduce the acreage in the Mountaineer Unit that we could acquire under the President's Appalachian Regional Commission proposal—possibly to 150,000 acres rather than the original proposal of some 550,000.

We could agree with the Governor's utilization committee that certain "wild" lands to the north and northeast of the Monongahela more properly fit the criteria of "depleted and unproductive forest lands."

The question of how long it will be before industry can afford, or feels it desirable, to move in and acquire the more productive lands for management purposes

is a difficult one to answer but it is very pertinent to the economy and well-being of the residents in the Mountaineer Unit.

### Desirability of the Mountaineer Unit

Senator Byrd. Is it still the feeling of the Forest Service that the acquisition of the new unit would be highly desirable?

Mr. Nelson. Yes, it is.

Senator Byrd. You do not view this program with any less enthusiasm than you have in the past 2 years?

Mr. Nelson. No, I do not think that we do or should. We could point out, Senator, though, that there is other land in the vicinity of the Monongahela National Forest where more of it, a higher percentage of that land, is of this primary depleted or unproductive land. I think I have seen these newspaper articles and I believe they refer to lands east of the Monongahela. I believe that is correct that there is more of this depleted and unproductive land in that vicinity. In that area, we also have, as you know, the possibility of a national recreation area.

Senator Byrd. In the area of Spruce Knob?

Mr. Nelson. Yes.

Senator Byrd. Now would you include these lands to the eastward in the Mountaineer Unit, the land to which these organizations have referred and which are not presently encompassed in your planned program?

Mr. Nelson. We have not made any study of an area, a large unit as a separate unit, outside to the east. We can look into that a little bit more. A preliminary look, indicates, based on their indication, and the news item indicates, that there is quite a lot of that land in that area.

### Counties Involved in the Proposed Mountaineer Unit

Senator Byrd. Can you indicate for the record those counties out of the eight which are involved in this proposed expansion which in your judgment would suffer a tax loss in the beginning?

Mr. Nelson. We have that information in relation to some of these counties and will be glad to provide it for the record.

(The information referred to follows:)

### Relation of National Forest Contributions to Counties to Estimated Taxes if Lands Were Taxed

Three-fourths of the lands in the Mountaineer Unit are in four counties—Greenbrier, Nicholas, Randolph, and Webster. There also are lands in these counties now part of the present national forest. Based on estimated tax returns if the national forest lands were assessed and taxed by the counties, the distributive share of the 25 percent of national forest receipts paid the State would, on an average per acre basis, exceed estimated local taxes in two of the four counties. If other forms of contributions by the Federal Government through protection and management of the national forest, such as road and highway construction and maintenance and fire protection, are added the contribution would exceed taxes in three of the four counties. All four counties obtained additional revenue from taxes on minerals retained in private ownership under national forest lands. If these are added to Federal contributions, the aggregate per acre would exceed estimated taxes on the national forest lands in all of the four counties.

Similar information has not been completed for the counties wherein the remaining quarter of the Mountaineer Unit is located. The probabilities are, however, that contributions to governmental cost from the national forest would substan-

tially replace tax loss due to national forest purchases, considering that in many lands the minerals would remain privately owned and taxable.

PRESIDENT'S APPALACHIAN REGIONAL COMMISSION REPORT

Senator BYRD. I believe you stated that certain of the eight counties would not suffer a loss in revenue; is that correct?

Mr. NELSON. Yes.

Senator BYRD. Is it possible that some of the opposition may stem from the forest industries' reaction to the draft of the President's Appalachian Regional Commission Report?

Mr. NELSON. I talked to Deputy Chief Pyles this morning before I came up here and that is why I happen to have these news items. It is our feeling that most of that opposition did stem from the President's Appalachian Regional Commission Report.

Senator BYRD. That report does not refer to the Mountaineer Unit as such, does it?

Mr. NELSON. I do not believe it does. I think it refers to 550,000 acres, as I recall it.

PROPOSED MOUNTAINEER UNIT TO MONONGAHELA NATIONAL FOREST

Senator BYRD. Do you feel, Mr. Nelson, that you can present to the committee a résumé which will present the objectives and the anticipated benefits in support of this proposed Mountaineer Unit so that we can, if we do add this item, in committee, go into conference feeling that we really have a strong justification for this?

Mr. NELSON. I believe we can give you a rather strong justification, Senator, yes.

(The information referred to follows:)

OBJECTIVES AND PURPOSES OF THE UNIT

The Mountaineer Unit comprises 1,050,000 acres of rough, forested, important watershed land adjoining the present national forest in the upper watersheds of the Gauley, Elk, and Little Kanawha Rivers, tributaries of the Ohio—95 percent of the area is privately owned, 86 percent of the land is forested, 14 percent is cleared and used for cropland or pasture purposes. Farming, however, is mostly on a subsistence basis and is decreasing as a land use and as an economic factor. The Mountaineer Unit is in an area of severe unemployment and a depressed economy brought about by decline in mining employment and depletion of forests.

Forest land here is basic and can be a major economic resource. However, employment in forest industries has been drastically reduced due to declining supplies of quality timber. Over a long period of years, the timber stand on much of this area has deteriorated through repeated logging and in some places through forest fires. Forest lands are not furnishing either the quantity or quality of wood they are capable of growing to sustain local wood-based industries. Forestry practices necessary to restore these lands to optimum timber production will require investments of time and money over many years. Only a small part of the forested area is being improved and used effectively to supply the quality raw forest materials adequate to attract and sustain an expanded forest industry. Progressive abandonment of small farms is adding to the area that will require and warrant forest management.

Watersheds also have deteriorated, particularly in the headwaters of streams. Streams in the narrower valleys frequently overflow and heavy silt loads adversely affect fish habitat and depreciate water quality for domestic and recreation use. The deteriorated condition of forest cover and watersheds in turn has an adverse effect on wildlife and fish populations which generally are low.

The counties that would be affected by the Mountaineer Unit have been classed as areas of substantial and persistent labor surpluses, averaging 22 percent for many years. Primary causes are lack of employment opportunities in agricul-

tural, forest, and mining industries. The area has supported a substantial mining industry, but employment opportunities have been sharply reduced as a result of changing methods of production and for other reasons, and this trend continues. Agriculture is becoming increasingly submarginal. This situation results in a high ratio of unemployment, a low per capita income, and increased public financial assistance and other welfare requirements.

The Mountaineer Unit has, notwithstanding, potentials for substantial economic contributions based upon renewable surface resources. It has varied and unique natural features, an attractive forest environment, pleasing scenery, and other features which could be the foundation for a large and potentially valuable recreation industry. Some 27 million people live within 150 miles of the area. It has high potential for wildlife production which in turn would attract people for hunting and fishing. The timber resource again can be the basis for a substantial and productive industry utilizing forest products. Minerals will remain a substantial part of the economy and their exploitation is compatible with sound management of the renewable resources if properly coordinated.

The possibilities for a new industry in this area oriented to development of the recreation and scenic attractions is promising. Such an industry could effectively add to the economic well-being and the opportunities for local employment. Its feasibility, however, will depend upon a public land base adequate to meet the public demands for hunting, fishing, hiking, riding, touring and other pursuits, and upon clean streams, managed watersheds, adequate supplies of fish and game, and a pleasing forest environment. Similarly, forest products can form the basis of an expanded industry provided the basic resource is restored and an expanding supply of quality timber assured.

To realize these possibilities will require a vigorous, accelerated program of natural resources development and conservation. National forest multiple-use management can contribute to such program. Such management would seek to develop all resources in harmony so that not only timber but water, recreation and wildlife resources would be enhanced and production increased.

The program for the Mountaineer Unit contemplates the acquisition by the United States over a period of years, through voluntary sale, of approximately 50 percent of the lands therein. This acreage is about 5 percent of the commercial forest land in West Virginia. The remaining 50 percent of lands in the unit would remain in private ownership and be used for residences, farms, or private forest management as the owners may find feasible and desirable.

Lands that would be acquired would be those where national forest administration would best promote expanded public recreation, with its concomitant local economic benefits, restoration of depleted forest stands—a longtime endeavor—and the sustained-yield production of crops of high-quality forest products therefrom as a basis of stable industries, and the needed improvement of watershed conditions, stream pollution abatement, and quality water production in the interest of both the local area and the downstream waterflow regulation. Development and improvement of lands so purchased would provide useful work of lasting national benefit to people in the area who are particularly qualified to do this type of work, and new industries and businesses should flow from improved forests and watersheds.

ESTIMATED COST

Senator BYRD. And do you feel pretty safe in your outside estimate of $12 million?

Mr. NELSON. Reasonably safe; yes, sir.

Senator BYRD. You feel that, in reality, the costs might be less, because the amount of acres purchased might be less?

Mr. NELSON. That is correct, on the basis, as Mr. Cliff explained, if the industrial owners will come in and buy some of that land and put it under some type of management, that will preclude the need for it being in the national forest.

Senator BYRD. For the record, I wish to state that the Senate Committee on Agriculture has been contacted by me several weeks ago in regard to this proposal and has indicated that it has no objections to the going ahead by the Forest Service with the purchase of lands and the creation of the unit.

WATERSHED MANAGEMENT LABORATORY, PARSONS, W. VA.

Now let us talk just a moment about the Watershed Management Laboratory at Parsons. How are we getting along? What is the status of the laboratory?

Mr. Harper?

Dr. HARPER. We are getting along very well, Senator Byrd. The construction is nearly completed. This building will be occupied probably sometime this spring.

Senator BYRD. Do you have any requests in this budget for that laboratory?

RESEARCH PROGRAM EXPANSION

Dr. HARPER. No, sir; we do not. The construction has been completed. However, we do have plans that after the laboratory is completed that we would like to expand the research program. We were not able to allow any increase in the 1965 budget for this purpose, however.

Senator BYRD. Was the request submitted for this?

Dr. HARPER. In our original request; yes. This was along with the staffing of several of the laboratories that were being completed about the same time. These are laboratories that were financed in 1963 and would have available space for an expanded program.

LABORATORY CONSTRUCTION AND STAFFING

Senator BYRD. Did you have any request for construction money?

Dr. HARPER. No, sir. Not at Parsons.

Our construction at Parsons is completed.

Senator BYRD. Are there any moneys in the budget for the staffing of that laboratory?

Dr. HARPER. No, sir.

Senator BYRD. There are no moneys for staffing?

Dr. HARPER. Well, now, let me make this clear. There is money in the 1965 budget to carry on the program that has been in existence at Parsons. There is no money in the 1965 budget, however, for expansion of the program.

Senator BYRD. So the staffing needs, as you envisage them, will not be met by the moneys in the 1965 budget?

Dr. HARPER. That is correct.

THE 1965 REQUESTED BUDGET

Senator BYRD. How much is in the 1965 budget for this laboratory?

Dr. HARPER. $100,000 of which $60,000 is for timber management research and $40,000 for watershed research.

Senator BYRD. How many persons do you presently have at the laboratory?

LABORATORY STAFFING

Dr. HARPER. Presently, we have seven people at the laboratory of which three are scientists and four are subprofessional; this latter includes clerks, technicians, and other subprofessionals.

Senator BYRD. How many persons could you effectively and efficiently use at the laboratory, once construction is completed?

Dr. HARPER. Well, this laboratory was built to accommodate the program that we had planned at Parsons; namely, for 17 people. In other words, there is a capacity there for 10 more people than we now have.

Senator BYRD. Could you use those 10 additional people in the latter part of fiscal year 1964, or could you use them beginning with fiscal year 1965?

That is, if the moneys were forthcoming?

Dr. HARPER. Yes; that is correct, because the building is virtually completed now and we will move into this new building prior to the beginning of fiscal year 1965.

Senator BYRD. So actually if you had the moneys you could staff or at least begin the recruitment of the 10 additional personnel even before the beginning of fiscal year 1965?

Dr. HARPER. Yes; that is correct.

### BUDGET REQUEST FOR FULL STAFFING

Senator BYRD. But we are talking in terms of fiscal year 1965 moneys. How much additional money would you have to have to add the 10 persons to round out your full staff of 17?

Dr. HARPER. That additional cost is $150,000.

Senator BYRD. So there is $100,000 in the budget for Parsons and $150,000 additionally is needed to enable you to reach your full staff contemplated?

Dr. HARPER. That is correct; yes.

Senator BYRD. Do I understand you to say, Dr. Harper, that there was a request for this additional $150,000?

Dr. HARPER. There was a substantial request in our original agency request. We did request some additional money to staff this and other laboratories that we were completing.

Senator BYRD. So it would be desirable, as I understand it, to have this additional money. The work is there, the research needs are there, and the recruitment of additional personnel would not pose a problem. If you had the $150,000 you could move forward and get into the work that is envisioned for that laboratory?

### PROBLEM IN TIMBER AND WATERSHED MANAGEMENT

Dr. HARPER. That is correct. Of course, we have a real problem in the field of timber management and in watershed management research that we feel that we should get ahead with as fast as possible. It was mentioned a while ago that much of this land in the Appalachian area is in poor productive condition. That is correct. Some of this land probably should be converted to conifers. It was originally in conifers, but now it has come into hardwoods. Some of it has what you would call weak soils. It will never support good stands of hardwoods, so there is the matter of how one would economically convert these particular stands to conifers. In general, there is the big problem of delineating the soils with respect to choice of species that should be favored in the forest management programs. Some of the land is excellent for hardwoods. And then, of course, along with that, watershed problems are extremely important in this mountainous area.

Senator BYRD. If you do not have the additional staff, it just means you have a facility there that is not being fully utilized?

Dr. HARPER. That is correct. The laboratory was constructed to accommodate a planned program that we want to go ahead with as soon as the budget situation will permit.

AVOIDING DELAY IN RESEARCH PROGRAM

Senator BYRD. Additionally and more importantly you are being delayed in getting into the research program which would be of so much benefit to the area and perhaps to the region; is that not true?

Dr. HARPER. I would say that is true; yes, sir.

Senator BYRD. And it is your objective, ultimately, if you do not get this money, to fully staff that laboratory, and consequently, in my judgment, if I might express it as I see it, we seem to be penny wise and pound foolish if we do not appropriate this money now and begin to get the full utilization of the laboratory and at the same time get the research program moving forward. You would have no problem with recruitment and you could use this money, if it were appropriated?

Dr. HARPER. That is correct.

PRINCETON LABORATORY

Senator BYRD. Now let us talk for a moment about the Princeton laboratory. Let me say, Dr. Harper, with regard to the Parsons laboratory, that you know, I was instrumental in getting this laboratory started by virtue of the amendment which I offered to add $150,000 to the bill making appropriations for the fiscal year 1963. I am intensely interested in this, and I think you have made a good case for it, this morning. The money, of course, will be hard to get, perhaps harder than is normally the case, but I shall certainly endeavor to press this case and try to get some additional money for it. If we cannot get the full $150,000, $75,000 would be helpful, would it not?

Dr. HARPER. That is correct.

CONSTRUCTION COMPLETED AND DEDICATION

Senator BYRD. Now let's talk about the Princeton laboratory. This laboratory was initiated as a result of an amendment which I offered adding $450,000 for fiscal year 1962. The laboratory was completed last year and we had a very fine dedicatory ceremony at the laboratory and you and Dr. Marquis were present.

Dr. HARPER. Yes; I was there.

Senator BYRD. And we had a very fine and enthusiastic turnout of citizens, not only of Princeton and Bluefield but also from surrounding counties and adjoining States. I think it is a very handsome structure that you have there and I am intensely proud of it and our people in West Virginia are exceedingly thankful for that facility.

Last year, I was successful in adding $250,000 to the budget request of $100,000 and we lost $50,000 in conference but this gave you $300,000 for fiscal year 1964. I was a conferee. This was to enable you to beef up the operation and move forward. Have you been able to spend that money, thus far, pretty effectively?

Dr. HARPER. Yes, we have, Senator Byrd.

We will have it fully staffed to the level of the $350,000 that we have available in 1964 for the program. That involves a total of 23 people in the laboratory at work before the end of this year.

Senator BYRD. The director of the laboratory there is Mr. Longwood. He is joining in the civic activities of the community and he is very well received by the citizens. He is doing a good job and he has caught the admiration of the population there and I often see stories and pictures in the Bluefield Sunset News-Observer which indicate that Mr. Longwood is providing real leadership in that area. Our people are tremendously happy about this laboratory and I think it is going to be of great and enduring benefit to the region. Our timber and lumber people are excited about it and they are giving it their support. I think we have something that is really going to be good for West Virginia and the other States in the whole northeastern region.

### 1965 BUDGET REQUEST

Dr. Harper, how much is in the budget this year for Princeton?

Dr. HARPER. There is $350,000 in the 1965 budget which is the same as we had in 1964.

Senator BYRD. How much do you actually need at Princeton in fiscal year 1965?

Dr. HARPER. This laboratory was built to a certain capacity to handle the planned program. The level of that program would be $700,000. We have $350,000 now. That would mean we would have to have $350,000 for an additional program when the financial situation permits.

### REQUESTED ADDITIONAL PERSONNEL

Senator BYRD. How many additional scientists and supporting personnel would the added $350,000 provide?

Dr. HARPER. It would provide 23 additional. I have a breakdown on that. It is the same as we have now. You see, we now have $350,000 for the research program at Princeton. We have 23 personnel. Another $350,000 would add 23 people to it. The capacity of the laboratory is 46.

Senator BYRD. So this would enable you to reach your planned capacity?

Dr. HARPER. That is correct.

Senator BYRD. Do you feel that if this committee and the Congress were to appropriate $700,000 for 1965 you could move forward and use that money economically and get a dollar's value for a dollar spent? You could recruit the additional personnel and fully utilize this money?

### IMPROVING FOREST PRODUCT MARKETS

Dr. HARPER. I would say, Senator Byrd, we could. I think we undertook a much harder job this past year in getting the leaders for the program and once you have the leaders for the projects, it is much easier to get the understructure, the junior members. I would say this: that I know of very few activities in forestry research that are more needed at the present time than marketing unless it is utilization research and we have already said our Forest Products Laboratory construction at Madison is our highest need. But marketing research is important. More utilization outlets, better market-

ing procedures, cheaper cost of production of forest products, and improving the marketability of the products are extremely important. I'm sure we could move ahead in this program. I appreciate what you said a while ago about the program at Princeton and what the people locally think about it. I think that is true and I think it is a real tribute to our people who are carrying on this program and to the progress they are making.

The industry, generally, I would say, is enthusiastic about the outcome of some of the studies so far undertaken and are more than willing to help in a cooperative effort to improve forest product markets.

Senator BYRD. I take it that a request was submitted to the Bureau of the Budget for the $700,000?

Dr. HARPER. A substantial increase was included in our original estimates. We wanted to implement this program to the fullest extent feasible, not only because of the nature of the urgent problems but because they are in an area that is economically depressed, where more industry and employment is needed for economic growth.

Senator BYRD. Dr. Harper, I shall certainly do everything I can to promote the cause in which you and I both are interested and I will do whatever I can to get this money for you.

Dr. HARPER. I might say, Senator Byrd, that we appreciated very much your participation in the dedication of the new laboratory. It was a very large affair and I heard very favorable comments from all the people that attended.

Senator BYRD. I think it was a fine program. Dr. Marquis did an excellent job in moving forward and keeping it on schedule, and you made a fine contribution, as I recall.

### SPRUCE KNOB, W. VA.

Now, Spruce Knob is the highest point in West Virginia. It is an outstanding scenic attraction and is receiving more and more tourist interest every year. Located at the head of the Potomac River, it has a special attraction not only for the residents of my State, but also for the eastern seaboard area. It is an important attraction for tourism in this portion of the State and in my opinion could be developed as a much greater asset to a local economy badly in need of assistance.

### PLANS FOR THE AREA

What plans do you have for the Spruce Knob area?

Mr. HENDEE. Senator Byrd, we have in our long-range plans, the proposed observatory on top of Spruce Knob. We have recently built a road near the summit of this knob, and we would have an observatory there that would be manned to point out the local attractions and bring out the various things that vistors to the area could enjoy.

Senator BYRD. Did I understand you to say you plan a motor road or that you have completed a motor road to a point just below Spruce Knob Summit?

### SPRUCE KNOB-SENECA ROCK NATIONAL RECREATION AREA

Mr. CLIFF. There is a road there now, Senator. The approach roads leading to the new road on Spruce Knob are to accommodate

heavy recreation traffic. A year ago on Labor Day, I took my family to the top of Spruce Knob and it is everything you say it is. It is a beautiful area and was just swarming with people on Labor Day. It is quite an experience to get up there and see the vegetation and the beautiful scenery. It is getting a lot of use already and, of course, this is an area that, if the proposed Spruce Knob-Seneca Rock National Recreation Area materialized, would be a key part of that recreation area which is proposed in the legislation which you have sponsored.

But even under our present program, we are trying to accommodate the growing recreation use. Spruce Knob is getting a lot of use and it is an outstanding attraction and can be developed into an even greater attraction.

Senator BYRD. Chief Cliff, I hope you will try some of our ramps when you are over in that area.

Mr. CLIFF. I have tried them, but at a different season of the year.

### OBSERVATION TOWER—SPRUCE KNOB

Senator BYRD. You think it is necessary to construct a special observation tower so the viewing public will be above the timber and the land?

Mr. CLIFF. I think it would be an added asset, yes. Although you can get a pretty good view of the country from what is there now. We have been building some additional trails, including a main trail for foot traffic up to the top. I think, eventually, we will need some visitor information facilities, but that would have to come along later after some of the more fundamental development work is completed.

Senator BYRD. What would be the estimated cost of the tower?

Mr. CLIFF. Do you have that?

### PLANNING AND ESTIMATED COST

Mr. HENDEE. Yes. We have done some preliminary planning along with the other planning for developments in that area, Senator Byrd, and our tentative estimate on this, what we have done so far, is it will cost somewhere around $50,000 to $75,000 to develop an appropriate observation tower. This would envision using appropriate materials, probably local materials that fit in the other developments in the area.

Senator BYRD. I take it that money is not included in the budget?

Mr. HENDEE. No; it is not. That is correct.

Senator BYRD. Could you utilize this money in fiscal year 1965, if it were forthcoming?

Mr. CLIFF. I am sure we could if it were added to the budget, but we have not, under the tight budget ceiling that we have been working, requested it as we did not think this should be included this year.

Senator BYRD. But you could use it, if Congress appropriated it?

Mr. CLIFF. I am sure we could, effectively.

### MONONGAHELA SCENIC DRIVE

Senator BYRD. Now that the State of West Virginia, the Bureau of Public Roads, and the Forest Service are engaged in planning to construct the Monongahela Scenic Drive, I am concerned about the visitor facilities. We talked about this last year. The first section

of the drive would be from Highway 39 to Highway 219, passing through some very beautiful country. It would seem to me that at the interchange where the scenic drive crosses Route 39 at Cranberry Mountain between Richwood and Marlinton, visitor facilities will be needed to permit people of my State and visitors from surrounding States to enjoy and learn about the unusual geographical, biological, and botanical features of this area.

### Visitor Information Centers

One of the features needed for recreation development in addition to campgrounds and picnic areas, is a visitor center where visitors can be motivated to learn more about the forests, wildlife, and other resources and the management thereof.

I feel that a visitor center with related structures will do much to foster tourism in this area of West Virginia with important benefits to the economy and provide services to the visiting public.

Does your survey of the recreation complex recommend a visitor center near this location?

### Plans for Development

Mr. Hendee. Senator Byrd, you mentioned that we discussed this last year and, as we said then, our plans for long-range development of the recreation complex in this area is that somewhere in the intersection of these two highways we would envisage a visitor center. This would be used, as you point out, to explain to the visitor the many, many things that are there available for him to see and appreciate.

### Cranberry Glades Area

They have in the Cranberry area a very unusual vegetation and so forth. This cranberry glades would be one of the main features which would enhance a visitor center in that area. We would not be limited to this. There are many other points of educational interest that we would want to bring out in a visitor center.

This will be, is now, and will continue to be, increasingly used, we think, in this whole recreational complex, including a resort area in this vicinity, along with other recreation facilities.

Senator Byrd. What is the estimated cost of this facility?

### Estimated Cost of the Center

Mr. Hendee. Our plans to date envision a recreation visitors center that will cost in the vicinity of $100,000. I think last year we stated this would be the estimated cost of this visitor center.

Senator Byrd. Does this include the cost of plans and specifications, the construction and the equipment?

Mr. Hendee. Yes, sir.

Senator Byrd. Could you give us a breakdown of these various item costs?

Mr. Hendee. We will be very glad to supply that for the record.

PLANS AND SPECIFICATIONS COSTS ESTIMATES

Mr. CLIFF. I think it would have to be pretty much of a guess estimate, because we have not gotten to the point of developing blueprints. So it would have to be a rather broad guess.

Senator BYRD. You could give us a pretty firm estimate of the plans and specifications costs?

Mr. CLIFF. Based on our experience in construction of other visitor centers, I am sure we could do that.

(The information referred to follows:)

*Cost estimate for Cranberry Glades visitor information center, Monongahela National Forest, W. Va.*

| | |
|---|---|
| 1. Plans and specifications and supervision of contract | $7,000 |
| 2. Contract construction | 70,000 |
| 3. Other related facilities including exhibits and other equipment items (includes exhibit room and audiovisual room) | 23,000 |
| Total | 100,000 |

Senator BYRD. If the $100,000 were to be appropriated, could you plan and construct and equip this facility during fiscal year 1965?

Mr. HENDEE. I believe we could, Senator Byrd. We have, over the past year or two, as a result of setting priorities in the visitor information program, done some preliminary work on this, so we are not without some general plans. They are quite specific plans, in fact.

Senator BYRD. So this item is a desirable item and, I take it, it is included in your plans for the future?

Mr. HENDEE. For the future, not in this fiscal year.

Senator BYRD. Not in this budget?

Mr. HENDEE. Yes.

PRIVATELY FINANCED RESORT

Mr. CLIFF. You are familiar, I am sure, with the plans we have for attempting to get a privately financed resort in this Cranberry Mountain area. We have just issued a prospectus for a high-quality resort lodge and other recreation facilities, to be developed on national forest land by private capital under a special use permit.

Senator BYRD. That is the old Mill Point Prison site, is it not?

Mr. CLIFF. That is correct. We are hopeful that this will materialize. It would be a fine asset and it would complement the plans we have for the development of the whole area.

Senator BYRD. If that development would materialize, would it interfere with the planned service, that is, the visitor center?

Mr. CLIFF. No, sir. It would make it even more desirable to have the visitor center there to give proper orientation to the public in our total multiple-use program.

SPRUCE KNOB OBSERVATION TOWER, WEST VIRGINIA

Senator BYRD. I would like to refer again to the Spruce Knob Observation Tower. The total cost, I believe you said, would be between $50,000 and $75,000.

Mr. HENDEE. Yes, sir.

Senator BYRD. Can you give us some breakdown on this cost?

Mr. HENDEE. Yes, I am sure we can.

Senator BYRD. Indicate in the breakdown to the committee what the cost of planning would be, construction, and so on. You could do all of this within fiscal year 1965 if you had the money?

Mr. HENDE. Yes, sir.

(The information referred to follows:)

| | *Estimated cost* |
|---|---|
| 1. Plans, specifications, and supervision of contract | $3,000 to $5,000 |
| 2. Contract construction | 42,000 to 55,000 |
| 3. Other related facilities including exhibits and other equipment items | 5,000 to 15,000 |
| Total | 50,000 to 75,000 |

A $50,000 project would be primarily an observatory. The $75,000 plan would provide for more complete interpretive facilities.

WATER IMPROVEMENTS

Senator BYRD. I hate to impose upon you, Chief Cliff, and upon your associates, but if I might ask a few additional questions, we will be able to finish.

I am sure you are aware of the heavy use which occurs at impoundments, such as at Spruce Knob and at Sherwood Lake, which have been built in the national forests in West Virginia. It is my understanding that the construction of these impoundments has been paid for from the proceeds of special State fishing licenses and other funds available to the West Virginia Conservation Commission. In view of their popularity, I am wondering why the Forest Service does not construct some of these from Federal funds?

Mr. GREELEY. Senator Byrd, if I may answer that question, you have mentioned two areas that are popular areas and those are good projects. We have not built impoundments such as the two you referred to since a few that we built during the period of the CCC program. That was primarily because we simply have had more pressing needs for the available dollars, sir.

We have just simply had to take care of situations where there were people coming to the forests and needing space for recreational pursuits, needing facilities for campgrounds and picnic grounds and improvement of old campgrounds and picnic grounds. We continue to be faced with these problems and, as I indicated, our facilities are overused to the extent of around 60 percent. Yet, in spite of this, visitors increase in number. There are additional large reservoirs; for example, the Federal Power Commission licenses, that create additional problems of this sort.

So we have simply been too hard pressed in trying to keep up with the existing usage, to get on with the businesses of making new impoundments. But we do believe it would be a good project to undertake.

ESTIMATED COSTS OF POTENTIAL IMPOUNDMENT SITES

Senator BYRD. A few months ago I asked some of your people to furnish me with a list of potential impoundment sites in the national forest areas of West Virginia. About 100 sites were listed. These included particularly good opportunities in Pocahontas, Nicholas, Webster, Greenbrier, Tucker, Pendleton, and Grant Counties. I

know the Forest Service recognizes that the small mountain lakes draw people from quite a distance and that these people spend money in the local communities. They do a lot to meet the recreation needs of people and they contribute substantially in these economically distressed areas. What is your estimate of the cost of these impoundments?

WEST BRANCH OF THE GREENBRIER RIVER

I am sure that you would have to submit this information for the record. I would appreciate your submitting an estimate on the cost of the site of the West Branch of the Greenbrier River which could provide fishing and related recreation with a lake having a surface area of 15 acres.

That is No. 1.

DESERT BRANCH, NORTH FORK OF THE CHERRY RIVER

No. 2 would be the cost of a site on Desert Branch, North Fork of the Cherry River, which could be impounded to create a surface area of approximately 10 acres.

This body of water would provide fishing and camping and add to the attractiveness of the surrounding area for recreation and use.

BIG LAUREL CREEK, GAULEY RIVER BRANCH

No. 3 is in Webster County. What would be the cost of a site on Big Laurel Creek, Gauley River Branch, which could be developed to provide approximately 5 acres of fishing water?

SLAB CAMP RUN, GREENBRIER RIVER DRAINAGE

No. 4 would be in Greenbrier County, a site on Slab Camp Run in the Greenbrier River drainage to be developed to provide about 15 surface acres. This site would provide fishing and attract tourists for other forms of outdoor recreation.

BRANCH OF BLACKWATER RIVER

No. 5 would be in Tucker County, a site on the branch of Blackwater River to be developed to provide 20 surface acres of fishing, boating, camping, and related outdoor recreation.

PENDLETON COUNTY

Finally, No. 6, would be in Pendleton County. While there are impoundment opportunities on the headwaters of the streams in Pendleton County, most of them are better suited to large structures costing in excess of $60,000 and I urge strongly that planning be initiated for construction of one of these during the next fiscal year.

I have six requests there and if it is not asking too much, would you please supply the answers for the record?

Mr. GREELEY. Yes, sir. We will do that.

Could I get a copy of that from you?

Senator BYRD. Yes, I will supply you with a copy.

(The information referred to follows:)

HIGHLIGHT STATEMENT

Based on past experience we would judge that impoundments of the size contemplated in West Virginia would cost at least $50,000 each. This estimate does not include recreation facilities, roads, and similar items which would be needed to make them suitable for fishing and recreation use.

A field survey is necessary to determine the cost of impounding water at a specific site. The main elements of cost and the ones which must be based on field survey are:

1. The size and design of the dam that can be installed.
2. The underlying geology of the selected damsite.
3. Locating a suitable source of material for the dam.
4. Evaluating the hydrologic capabilities of the tributary watershed lands.

We lack specific information on the six sites about which you ask. For purposes of this discussion, we would estimate that on the average these projects would entail investments of $50,000 to $75,000 for the dam and reservoir, plus probably $50,000 to $60,000 for swimming facilities and recreation improvements. In addition, there would be the cost of whatever length of road would be needed to provide suitable access to the site.

NORMAL COST OF IMPOUNDMENT

Senator BYRD. What would be the normal cost of an impoundment of the size we are talking about, 10 to 25 surface acres?

Mr. GREELEY. A 10- to 25-surface-acre facility would cost from $75,000 to $100,000 and it could run over that if there was very much road construction involved.

Senator BYRD. But you would be including the cost of the road system and construction of minimum facilities?

Mr. GREELEY. The $75,000 to $100,000 would be including minimum facilities, but not necessarily the road.

Senator BYRD. But the cost of the impoundment, itself, would be how much, $50,000 or $40,000?

Mr. GREELEY. $50,000. It could be that.

Mr. CLIFF. That is difficult to say in a general way, because the cost of building dams varies a great deal with the nature of the damsites, the amount of excavation, the foundation system.

Mr. GREELEY. And the amount of reservoir clearing.

Mr. CLIFF. It varies a great deal, Senator, as you can appreciate. Some reservoirs can be built cheaply and others more expensively in comparison of acreages of the lakes to be formed.

ACCOMMODATIONS AT EACH SITE

Senator BYRD. Again, depending on the situation, would you say that an area of this size could accommodate 200 to 500 people at one time, for a total of 30,000 or 40,000 man-days of use per year?

Mr. GREELEY. The larger acreages you referred to of 25 to 30 acres water, a facility that size could undoubtedly accommodate in the neighborhood of what you are talking about and, again, the number of people that would be accommodated in the course of a tourist season would be pretty much a function of how good the roads were.

Senator BYRD. It seems to me that projects of this kind are in the nature of an investment in the resource values of the national forest but more particularly in building up the economic base of the general areas.

As an illustration, if you have a place where about 40,000 people are using it per year and if half of this were used by people coming into the area and if these persons spent only $2 a day for supplies and

services, this could make quite a difference to the local business community. It would help create jobs.

### Estimated Recreation Improvement Construction Costs

Chief Cliff, do you suppose we could find a way to provide the investment figures you apparently need to get started on the construction of recreation improvements on national forests particularly in areas such as West Virginia where we have such a shortage of natural lakes?

Mr. Cliff. I am sure we could take the list that has already been provided to you at your request and make some estimates as to what would be required to develop such a program. The matter of financing it would have to fit in with our needs for other activities and for other recreational activities. As Mr. Greeley has pointed out, we have been pressed so hard in trying to accommodate the people that are already coming in, we have not been in a position to move forward in this particular activity.

Senator Byrd. Well, if you have any additional thoughts on this last item, as to the feasibility and advisability of moving forward in these areas, I would like to have your suggestions as to how I might be helpful, if such thoughts occur to you, Chief Cliff.

Mr. Cliff. Thank you.

### Research on Restoration of Strip-Mined Areas

Senator Byrd. You say you are moving ahead with the strip-mining program satisfactorily, Dr. Harper?

Dr. Harper. Yes. This work as you know, is headquartered at Berea, Ky. However, the problems extend through a good bit of the Appalachian Range. It involves West Virginia, Kentucky, Tennessee, and quite a number of the States. I think we are making pretty good progress on it. Of course, the program is still young, just getting started in its expanded state, but I have high hopes for it.

Senator Byrd. How much did Congress appropriate last year for this program?

Dr. Harper. $150,000 increase for strip-mining research.

Senator Byrd. Is there anything in the budget this year for this item?

Dr. Harper. We carry the same amount in the 1965 budget that we had in 1964.

Senator Byrd. Which is $150,000?

Dr. Harper. That is not the total program. I do not have that figure with me, but I could obtain it for the record. It is $175,000.

Senator Byrd. That was the increase last year?

Dr. Harper. Yes. The increase was $150,000.

Mr. Cliff. We have had some of this work going on for a number of years, Senator, up in the Central States, in Ohio, and Indiana and they have developed methods for restoration of lands under those conditions.

This work in the Appalachians would be an extension of the strip-mining rehabilitation work we have had underway.

Senator Byrd. I almost forgot. One important item.

MORGANTOWN LABORATORY

Dr. Harper, last year I was able to get $31,500 included for the plans and specifications concerning the research laboratory at Morgantown. What is the status of this? You mentioned it a little earlier in testimony today. Are you ready to move forward with construction?

Dr. HARPER. We would be ready by the spring of 1965. I am sure with the negotiations being carried on now by the General Services Administration the award will soon be made for the contract on design, and the design and specifications will be completed on a schedule set for December 1964.

Senator BYRD. I assume you have no money in the budget for construction?

Dr. HARPER. We do not have.

Senator BYRD. Could money be utilized if an appropriation were forthcoming?

1965 BUDGET FOR RESEARCH CONSTRUCTION

Dr. HARPER. I think we are in the same position here that we are in some of the other projects for which we had planning funds in fiscal year 1964. It would be feasible to award contracts for construction in fiscal year 1965. However, as you know, we do not have funds for research construction in the 1965 budget except for the addition to the Forest Products Laboratory at Madison which we deem a very high-priority project.

Senator BYRD. What would be the estimate of the cost of construction?

Dr. HARPER. It would be—you see, this is a $450,000 laboratory. The planning cost is $31,500. I would say, $418,500 for construction. We are designing a $450,000 laboratory and usually the total cost includes the planning as well as the construction.

Senator BYRD. Was a request submitted to the Bureau of the Budget for the construction moneys?

Dr. HARPER. Yes, in our original estimate we did include this construction item in our request.

LABORATORY PERSONNEL

Senator BYRD. How many persons would be employed at this laboratory upon its completion?

Dr. HARPER. I do not recall the exact figure. We have done some studies on that. I wonder if I may supply that for the record?

(The information referred to follows:)

The Forestry Sciences Laboratory planned for Morgantown, W. Va., will have a capacity of 16 scientists and 16 technicians, clerks, and other supporting personnel.

LABORATORY CONSTRUCTION

Senator BYRD. Yes, please do. Do you feel that if you had the money you could construct this Laboratory and begin the operation of your research program in fiscal year 1965?

Dr. HARPER. I doubt if we could complete the Laboratory in fiscal year 1965. We could get the construction started; it would probably

be the fall of the following year before the Laboratory would be completed.

In other words, there would be about a half a year available for its occupancy.

Senator BYRD. Does this mean you could move forward with the construction of the Laboratory if you had, say, $200,000 appropriation or would you have to have all the money in hand before you let a contract?

Dr. HARPER. I would think, yes. I do not believe it would be possible to award the contract, unless we were absolutely sure the rest of the money would be forthcoming.

Senator BYRD. So you would have to have $418,500 appropriation in this fiscal year?

Dr. HARPER. That is correct.

Senator BYRD. And I think it goes without saying that your answer would be that this would be a very desirable piece of money to have so that you could get started on construction?

Dr. HARPER. Yes. It is like a lot of other things, Senator Byrd, we would like to get going as quickly as we can but they all depend upon priorities and the financial situation as you understand, I am sure.

Senator BYRD. There are no roadblocks other than the need for the appropriation?

Dr. HARPER. That is correct.

### LABORATORY SITE

Senator BYRD. Do you have the site?

Dr. HARPER. We have the site. It is a site that is being made available by long-term lease by the university. One reason we got delayed a bit in the awarding of the contract for the design and specification was that the original site that the university offered did not prove to be desirable after we made a site survey and so we had to select another one. However, a site survey of this new location has been made by our engineers and it proves to be an excellent one. It is near if not on the campus. It is a new area I believe that is being added to the campus.

Senator BYRD. "A man's reach should exceed his grasp, else what's a Heaven for?" I will try to reach and get the money for you so we can get that construction started, Dr. Harper.

### COOPERATION ON BETTER UTILIZATION OF FORESTRY RESOURCES

We are very desirous of getting this and we appreciate, Dr. Harper, in West Virginia, the fine cooperation, the great interest, the good work, and the encouragement and vision that you and Dr. Marquis and Mr. Pyles and Chief McArdle and Chief Cliff and the others are bringing to bear upon our economic needs and our problems through the better utilization of our forestry resources. Such utilization resulting from these additional laboratories, and programs, that you folks have engendered and promoted. I personally am very grateful to you and to the others in the Forest Service for your excellent help and keen interest.

Dr. HARPER. Thank you, sir.

Senator BYRD. I apologize, again, for keeping you so long, Chief Cliff.

Mr. CLIFF. That is perfectly all right. We will be willing to stay here as long as you have questions for us to answer.

Senator BYRD. Chairman Hayden has received a number of statements and letters which he has asked me to place in the record at the end of today's hearing. This material will be printed at this point.

(The material referred to follows:)

STATEMENT BY SENATOR CLINTON P. ANDERSON REQUESTING CONSTRUCTION FUNDS FOR A FOREST SCIENCES LABORATORY AT ALBUQUERQUE, N. MEX.

Mr. Chairman, last year I appeared before your committee supporting a request for funds with which to construct on the campus of the University of New Mexico a forestry sciences office-laboratory. The estimated total cost was $632,000. This would have provided a much-needed office-laboratory, greenhouses, headhouses, and necessary workshop facilities. Your committee approved sufficient funds for planning and architect fees with the hope that this would be done in fiscal year 1964 and that we could proceed with construction in fiscal year 1965. These funds were cut out in conference between the House and the Senate.

Mr. Chairman, I am appearing again today to renew my request because this laboratory and related facilities are of great importance to the U.S. Forest Service in their western watershed and range management programs. Delay in carrying out the necessary research and experimentation only retards advancement in solving the many complicated range and forestry problems. The new laboratory should greatly accelerate the solving of these difficulties.

To review briefly, I want to remind the committee that I have worked closely with the U.S. Forest Service for many years on the pressing western watershed and range management problems. In 1952 I testified in behalf of the funds approved for establishment of the forest research unit in New Mexico. They have been doing a fine job but they are hampered by the lack of facilities and because their personnel is scattered over the city of Albuquerque. Part of the staff has been located at the University of New Mexico but because of the ever-increasing need for space it has become imperative that the university claim the space now being occupied by the Forest Science Office-Laboratory. I understand that the Forest Service has already moved some of its research equipment to free some of the space needed by the university.

The work of this experiment and research station in developing and making available information regarding the best use and management of our watersheds, range, timber, wildlife, and recreation resources is urgent. Destructive insects and diseases are causing heavy losses in valuable stands of ponderosa pine, Douglas-fir, and white fir which make up an important part of the natural base resource of the region. It has been estimated that the loss in this area alone for the past 10 years has amounted to $10 million.

Some of the research at Albuquerque is associated with management of rangelands and improvement of techniques for maintaining high yields of forage from seeded acreage. Protection of watershed values and development of means for controlling erosion are important related areas of study. The present field research needs to be supplemented with Laboratory investigations which supply the fundamental basis for improved practices.

Most of the Forest Service programs are running behind schedule now and the solving of many problems related to their work is impaired by the present temporary housing of the Laboratory and related facilities. The University of New Mexico has offered to donate sufficient land on the university campus on which to build the Laboratory. Funds sufficient for planning and construction would amount to approximately $632,000. Preliminary planning for the structure would require about $50,000 of this amount. I strongly urge that sufficient moneys be appropriated for beginning this project during this 1965 fiscal year so that it can be completed by 1966. Thank you very much for your consideration.

STATEMENT BY SENATOR GAYLORD NELSON URGING APPROVAL OF FUNDS FOR EXPANSION OF THE FOREST PRODUCTS LABORATORY

Mr. Chairman and members of the subcommittee, last year, the Senate approved the appropriation of $3,800,000 to expand the U.S. Forest Products Laboratory at Madison, Wis. However, this appropriation was removed at the request of House members of the Senate-House conference committee.

This year, the appropriation has been included in the budget request, and it is my earnest hope that it will now have the enthusiastic support of the House as well as the Senate. I have already appeared before a House Appropriations subcommittee in support of this request, and Congressman Kirwan has made the statement that the appropriation is in a different category this year because it is included in the budget request whereas last year it was not.

There are several reasons why the appropriation is all the more urgent, and all the more justified, this year than last. First, this appropriation will be of real help to all our forest products industries. It just so happens that this kind of help would be of real value in the administration's war on poverty and on regional recessions. The President has cited the Appalachia area and the northern Great Lakes region as areas requiring special help in facing serious economic problems. These, along with some sections of the South, are the very areas which would experience the long-range benefits from expanded research into the use of forest products.

Second, the Forest Products Laboratory is one of those unique institutions which more than pays its own way. We have established the Laboratory; our forest products industries are dependent on it; and we are committed to its expansion. Therefore the way to get the maximum benefit out of this investment, the way to use it to earn the greatest possible dividends, is to complete as soon as possible this long-planned and long-overdue expansion, which is absolutely necessary if this unique institution is to make its maximum contribution to our economy.

DESCRIPTION OF THE LABORATORY

The National Forest Products Laboratory, a research arm of the U.S. Forest Service, was established in Madison in 1932, on 10 acres of land adjacent to the University of Wisconsin, the first institution of its kind. The work of this central Laboratory is coordinated throughout the United States by Forest Service experiment stations in 11 areas.

The staff now works in space designed for half as many persons. Facilities are obsolete, makeshift, and badly crowded. The nature of research has changed greatly since 1932. The nature of the timber industry has changed just as dramatically.

This is one of those relatively rare public programs which has the enthusiastic support of the business community because it pays for itself many times over. The forest products industries are clamoring for expansion of this Laboratory to provide research facilities which are so vital to their industry.

This Laboratory developed waterproof plywood, laminated roof beams, prefabricated housing, moldable paper plastic for countertops, sandwich partitions, cold soda pulping, wood-preservative techniques, stablization of wood to prevent swelling, prestressed wooden beams, plywood nose fairings for Polaris missiles, and new uses for all manner of forest products. The Laboratory is working on new techniques for the paper industry, how to make paint last better on houses, and how to build cheaper and longer lasting homes.

It is seeking to find better use for small, second-growth trees which form the bulk of our future forests; how to make profitable use of the many types of trees that now are used little if at all; how to use the waste products in timber production; and how to control and modify wood products to get the greatest possible service and economy from them.

This work is invaluable. The wood industry is in a serious decline. In many areas, timber-based activity is the greatest employer of labor. Many of the troubles of the vast depressed area which includes northern Michigan, Wisconsin, and Minnesota (which the late President Kennedy rallied into action at a Land and People Conference at Duluth on September 24, 1963), are traceable to troubles in timber-based industries.

The industry has structural troubles. There are some 40,000 lumbering establishments, 6,000 wholesale distributors, and 35,000 retail lumberyards. These widely dispersed fragments of the industry operate at a low level of technology and they themselves cannot conduct the research program which is necessary to understand their raw materials adequately and develop and improve new products.

Only continuing and intensive research can keep wood competitive in the modern industrial world.

THE EXPANSION PROPOSAL

The proposed expansion of the Laboratory will provide space for pulp and paper and wood chemistry research, making more of the existing, 30-year-old space available for activities connected with engineering, solid wood products, and wood quality.

The University of Wisconsin has made 12 additional acres of land available for the expansion.

In fiscal 1963, $200,000 was appropriated for architectural and engineering plans. These plans are ready to be submitted to bids next May.

The Senate Appropriations Committee inserted the necessary $3,800,000 in the fiscal 1964 budget but this was removed in a conference committee report which drastically reduced additions made by the Senate.

The Congress is committed to the expansion of this world-famed research Laboratory. It is going to be built sooner or later. Inasmuch as the expenditure of this relatively modest amount of money will actually earn far more money and strengthen our economy, especially in some of its most depressed areas, it makes no sense at all to continue to delay.

HOPE FOR DEPRESSED AREAS

Forest products utilization research has potential for developing new industrie based on wood. Such industries could do much to provide jobs and provide a better economic base for rural America. The present timber-based industry is said to now provide jobs for 1 out of every 20 people employed in the United States. Even a small percentage increase in this industry could do much to relieve our unemployment problems.

Economically depressed areas, such as the upper Lake States and the Appalachia, have an abundance of hardwood forests. These forests now are not being utilized or developed to their full potential. The reason for this is that present wood-using plants cannot profitably use the lower value trees which constitute over 75 percent of these timber stands. It is conceivable that high-tonnage industries, based on these presently considered low-quality trees, could not only provide jobs but also permit the proper management of these forests to provide trees of higher value. Profitable use is essential to good forest management.

The Forest Products Laboratory has done an outstanding job in the past to expand the raw material base for forest industries, to improve present practices and to develop new processes. High-yield pulping processes for hardwoods, improved seasoning methods, technical bases for design of wood-based structures, and preservative and fire-retardant treatments for wood are a few of these accomplishments. In addition a considerable knowledge has been developed of the basic anatomical structure of wood and its chemical and physical properties.

The easier things have been done and further substantial progress requires a deeper understanding of the fundamental properties of wood and its reaction to physical, chemical, and biological agents. It is highly important therefore that new facilities and modern equipment be provided to speed up and make possible the development of new products and processes.

The utilization of hardwoods for fiber and chemical products could be greatly advanced by the proposed facilities. Some completely new approaches will be developed. One objective is to develop pulping processes that do not constitute a water or air pollution hazard and which use all of the wood substance. Another objective is to develop the bases for establishing a major wood-chemical industry to complement the present petro-chemical industry.

The Government's interest in an adequate program of forest products utilization research might be listed as follows:

1. The practice of good forest management is highly dependent on use of the lower valued parts of timber stands and this valuable resource will continue to be depleted unless an adequate utilization industry is available.

2. New timber industries can do much to relieve unemployment and add to the tax base.

3. Direct income from Federal forests, now estimated to be $150 million per year, can be substantially increased.

4. Assistance to developing countries who generally have an abundance of wood and who can utilize wood for their shelter, food, and fiber needs.

The construction of this facility is in line with the long-range plans of the Department of Agriculture for forestry research. This program contemplates

a major laboratory at Madison, Wis., together with smaller research groups in the various regions. Ordinarily, these smaller groups will be housed with other forestry research projects. These groups will carry findings of the Forest Products Laboratory to their respective regions and extend them in the solution of specific problems of the region.

SOUTHERN PINE PLYWOOD—A NEW INDUSTRY

Several studies at the Forest Products Laboratory, made in recent years, have provided the technical background needed for the development of a new industry to make southern pine plywood. These developments are particularly timely because recent forest survey data have shown an increasing volume of sawtimber-size logs, coming at a time when current lumber markets could not absorb more of the lumber product. Plywood manufacture also provides the opportunity to establish markets that have so far been unattainable to southern manufacturers.

Manufacturers hoping to go into southern pine plywood production have recently been conducting their own pilot-plant evaluations, relying heavily on laboratory research and guidance with respect to log selection, log heating, veneer cutting, drying, and gluing. As a result, amazingly successful results have been reported for those pilot studies already completed, and in every case those manufacturers that have sought out FPL cooperation have concluded that the process looks promising both from the technical and economic standpoint.

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LETTER FROM UNDER SECRETARY OF COMMERCE REGARDING IMPORTANCE OF FOREST PRODUCTS LABORATORY

THE UNDER SECRETARY OF COMMERCE,
*Washington, D.C., February 20, 1964.*

Hon. GAYLORD NELSON,
*U.S. Senate, Washington, D.C.*

DEAR MR. NELSON. You have requested a statement from the President's Appalachian Regional Commission concerning its position on proposed construction expenditures for expansion of the Forest Products Laboratory in Madison, Wis. These expenditures will enable the Laboratory to do basic wood chemistry and wood fiber research, and offer the possibility of greatly increased uses for low-grade hardwoods.

Over three-fifths of the land of Appalachia is forest, and 80 of the species in this forest are hardwoods. A substantial part of this is low grade. The Commission, after consultation with State, Federal, and private groups interested in forestry is recommending an action program which we think will help make Appalachian hardwoods a much more important source of employment and income to the region than they are today.

When conferring with industry and examining the timber situation on our own, we became aware of the great need for forest product research, partly because of the inroads of competitive substitutes for hardwoods and partly because of the fact that development of uses for the standing timber could constitute a tremendous contribution to the revitalization of the region.

Our budget contains sums set aside for research through the Forest Service laboratories at Madison, Wis., Princeton, W. Va., and through outside contractors. Both you and the Forest Service indicate a major breakthrough could come in the utilization of low-grade hardwoods, from the research at Madison, if the needed facilities are constructed. The Commission wholeheartedly sponsors this expenditure, for we recognize what a tremendous multiplier of jobs and income timber can be.

Sincerely yours,

FRANKLIN D. ROOSEVELT, Jr.

## STATEMENT BY SENATOR WALLACE F. BENNETT URGING INCREASED APPROPRIATIONS FOR THE FOREST SERVICE

### WATERSHED MANAGEMENT RESEARCH

Mr. Chairman, it is a privilege to testify before this distinguished subcommittee. Today I would like to direct the subcommittee's attention to the current need for strengthening the watershed research program of the Forest Service at Logan, Utah, and to urge the appropriation of additional funds for this purpose.

Water from the forested high mountain areas and intermingled rangelands of Utah and adjacent States is a vital resource of great importance to the economy and well-being of residents throughout the region. It is impossible to overstate the importance of these national forest watersheds. They are the principle source of water for irrigation, domestic, and industrial use in the Great Basin. These same lands provide summer forage for the livestock industry, a significant segment of the region's economy. Also, in the past several years recreation has become an increasingly important activity on these mountain lands.

In the face of increasing demands for the products from our mountain watersheds, the actual productivity, under present practices, falls short of the potential. Water supplies are frequently critical, and effective methods of increasing yields of good quality water would be of great value. These high mountain areas also contain much depleted rangeland which is a source of destructive runoff and sedimentation. Because of the rapid runoff when high-intensity rainstorms strike these high mountains, it is very difficult to establish vegetation by usual means. The clamor for increased water yields, the necessity of reducing grazing permits, expensive treatments to stabilize watersheds, and the deteriorated conditions of many recreation areas are indicative of present watershed problems.

These problems strike at the root of the livestock industry and recreational activity by reducing the value and utility of their resources. They affect adversely our water supply, which is the limiting factor in economic development in our State. Further impairment of amount and quality of water yields would threaten the existence of some of our communities.

Continuing demands for products from our watersheds require that they be given the best intensive management possible, based on more scientific knowledge than is now available. The Forest Service now conducts a limited program of research on watershed management problems in cooperation with the Utah State University at Logan, Utah. However, the present program is far from adequate. Additional effort is urgently needed to develop watershed management techniques for improving water yields and timing of yield, and to determine ways of reducing destructive storm runoff, erosion, and sedimentation from deteriorated rangelands through restoration of plant cover and supplementary structural measures. Scientists and technicians are needed to intensify vitally needed research on these problems.

In the fiscal year 1965 budget, approximately $252,000 is provided for all of the Forest Service research underway at Logan, essentially the same as last year. This amount finances small programs of insect and disease research and recreation studies as well as the important forest and range watershed program.

The subcommittee will recall that 2 years ago it wisely approved funds for the first phase of a new Forestry Sciences Laboratory at Logan, Utah. The Laboratory, which was recently completed, appropriately is designed to carry out research on mountain watersheds and will benefit the large intermountain area of Utah, Idaho, Montana, Nevada, and western Wyoming.

However, no additional funds are included in the fiscal year 1965 budget to carry out the expanded research program which is now possible—and required—with the construction of this new facility. An increase of $250,000 is needed now as a minimum for strengthening this research sufficiently to make reasonable progress commensurate with the importance of good management of the forage and water-producing lands in Utah. This work will be done in cooperation with the Utah State University from the new Forestry Sciences Laboratory of the Forest Service located on the university campus.

This facility and the research program planned for it will do much to solve the problems of watershed management. Because of the urgent need for early solutions and improved management practices, I respectfully urge the appropriation of an additional $250,000 to accelerate the modest research program now underway.

An intensified research program on watershed problems in Utah will benefit the entire region.

LAND ACQUISITIONS FOR WATERSHED PROTECTION

In addition I would like to call the committee's attention to an item included in the fiscal year 1965 budget for the purchase of certain lands for watershed treatment purposes.

In the last Congress I had the privilege to sponsor a bill, which became Public Law 87-661, allowing the addition of some 24,000 acres of land to the Wasatch National Forest so erosion control measures might be carried out to protect the existing national forest area and permit a more complete program of watershed protection. The bill named an estimated cost of $400,000 for the purchase of 18,114 acres which were in private ownership. Last year the committee wisely approved $250,000 so the Forest Service could negotiate with the owner of one large tract of 14,000 acres.

This year the budget includes $150,000 to complete this purchase of the privately owned lands.

These are important watershed lands and must be protected. I respectfully urge the committee's approval of the budgeted funds to complete their acquisition.

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NEWSPAPER STORY SUBMITTED BY SENATOR THOMAS H. KUCHEL REGARDING FOREST FIRE PROBLEM IN SOUTHERN CALIFORNIA

[From the Los Angeles Times, Jan. 27, 1964]

SOUTHLAND FIRE PROBLEM CALLED MOST DIFFICULT—MOTHER NATURE, TOO MANY PEOPLE, COMBINE TO MAKE REGION TINDERBOX, PARLEY SAYS

(By Jerry Gillam, Times staff writer)

SACRAMENTO.—No other place in the world has a fire control problem as complex and as difficult to solve as the one which exists in the southern California metropolitan area.

Mother Nature and too many people have combined to make the 10-county region a gigantic tinderbox just waiting for a spark. These are the conclusions of the Southern California Regional Association of County Supervisors, now working on a long-range program to develop a master plan for fire safety and wildland usage.

SAFETY STANDARDS

The association has adopted a series of fire safety standards and member counties have done likewise.

These standards deal with safe access routes, identification of roads and buildings, clearance of brush from around structures, building spacing, community firebreaks, adequate water facilities, construction requirements, refuse disposal, and land division approval.

The State division of forestry, under the direction of Francis H. Raymond, is offering its encouragement and guidance in implementing the plan. The magnitude of the southern California fire control problem is summed up by the association as follows: "The mild climate, rugged mountain profiles, and picturesque chaparral cover, which make the area a most desirable place to live, combine to create one of the most difficult fire suppression efforts.

"People added in great numbers during the past 20 years have multiplied this difficulty."

LITTLE RAIN

It notes the local climate consists of mild winters, hot, dry summers, and little or no rain between April and October.

During the fall and winter months, so-called Santa Ana winds up to 70 miles per hour are experienced. These winds, the association points out, lower moistures and relative humidity to minimal levels.

The drying effects thus create a fire weather condition comparable to that of the summer months.

The population of southern California has nearly tripled since 1904 increasing from 3.6 to 9 million, and will hit an estimated 13 million by 1970.

As a result of this population boom, the association emphasizes there has been an increasing intrusion of urban development into watershed, forest, and wildland areas.

It says, "There have been located within high fire hazard areas numerous individual homes and cabins, subdivisions, resorts and recreation areas, organizational camps, businesses and industries."

The magnitude of the southern California fire control problem is summed up by the association as follows:

"The increasing demand for recreation places great numbers of pleasure-seeking people on the highways and in recreational areas on holidays, weekends, and vacations."

DENSE GROWTH

Chaparral, or dense growth of many species of shrubs, covers 70 percent of the mountains and foothills.

The association says, "Although esthetically pleasing as a recreational environment and as surroundings for a homesite and valuable as a watershed cover and game habitat, it is highly flammable.

"In its dormant state, chaparral can survive long periods of drought and becomes almost explosive in its flammability." The division of forestry recognizes the seriousness of the fire control problem and is offering its help.

A recent report by DeWitt Nelson, director of the department of conservation, stated, "Population explosions in areas of the State have led to multimillion-dollar developments in wild-land areas with little or no fire protection.

"In some of the areas, State government has no financial responsibility. In others, existing law places financial responsibility at the State level for forest and watershed protection with local authorities responsible for protection of lives and capital improvements.

"County boards of supervisors, and other responsible local officials are requesting and receiving assistance in rural fire protection planning to cope with these situations from fire protection experts in the department's division of forestry."

The January meeting of the State forestry board featured a presentation of a cooperative planning program at the Federal-State-county levels designed to protect resources, lives, and property in southern California mountain areas.

Much of the success of this type of planning, however, is dependent on how much attention is paid to it. In other words, the individual not only must be made aware of the fire hazards in his own environment but he also must take steps to remove them for his own protection.

All of the planning in the world, the experts agree, can't do this for him.

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LETTER FROM WESTERN FORESTRY AND CONSERVATION ASSOCIATION URGING APPROVAL OF THE FOREST SERVICE BUDGET

FEBRUARY 24, 1964.

Hon. CARL HAYDEN,
*Chairman, Senate Appropriations Subcommittee on Interior and Related Agencies, Senate Office Building, Washington, D.C.*

DEAR SENATOR HAYDEN: Western Forestry and Conservation Association commends the administration for the foresight shown by the presentation of a budget which has been judiciously examined for economy yet has seen fit to include provisions for modest but very important strengthening of research in forestry throughout the Nation. We respectfully request that the following remarks in justification of these forest research items be included in the record of the subcommittee's hearings on the proposed Forest Service budget for fiscal year 1965.

The forests of this country are important for their multiple uses. Just the value of the timber cut each year is now over $1 billion and all timber-based economic activities contribute about $25 billion annually, nearly 6 percent, to the entire gross national product. One-fifth of this originates in 11 Western States and one-sixth comes from the 3 Pacific Coast States.

Forests are dominant aspects of these Western States. For example, commercial forest land covers over 40 percent of Oregon and Washington. These forests produce over 25 percent of the Nation's lumber, 15 percent of its woodpulp and over 80 percent of its softwood plywood. A high percentage of all western forest land is federally owned.

The protection and maintenance of this tremendous wealth-producing asset is of vital concern to the West and to the Nation. It in turn depends upon knowledge developed from a continuing strong program of forestry research.

Diseases are a very important factor impairing forest productivity. Yet forest disease problems have been given only a minute fraction of the effort needed to develop efficient controls. These problems are complex and their solutions are necessarily laborious. But the alternative to an adequate level of disease research is to suffer increasing losses to our forest resource.

Effective control measures have been devised for some of our most troublesome diseases. In several other instances, research has found ways of reducing the economic impact of disease—for example, by appropriate changes in cutting practices—even where actual control is not yet possible. But progress is far too slow to meet current needs, let alone demands for information that must be expected in the near future as forest management becomes more intensive. We cannot afford to wait for information to be accumulated at the present rate. Neither can we afford to base management decisions on guesswork, since mistakes that we make today may be felt for a century or more. Until disease problems can be given attention proportionate to their importance, forest management will be badly handicapped by lack of essential knowledge.

Insects are another forest pest that cause us to lose part of the basic source of economic activity. Within the past 20 years, synthetic organic insecticides have made it possible to protect extensive forests against some of their most damaging insect enemies. Their use gave promise of being able to halt for a while the destruction by insects that exacts an annual toll from the Nation's forests in excess of the total log production from all the forests of Oregon, the leading timber-producing State of the Union. Then it was found that the use of some of these insecticides posed certain hazards. Their use had to be reexamined and still greater care taken in some instances. The need for alternative means of control became urgent and efforts were accelerated to develop them.

Chemicals still are the only available means for controlling outbreaks of many forest insects. Foresters are doing an outstanding job of forest protection with chemical insecticides. We of Western Forestry & Conservation Association are sure that this essential job must continue so that our forests will be able to meet the increasing demands upon them. We are likewise sure that this job must be done without impairing health and other resources. We are pleased that the Forest Service has recently undertaken a project in California to screen the products of the chemical industry and make them available to foresters in safe and effective form, to find better ways of using the chemicals already available, and to help develop new and better chemicals. This project, the only one of its kind in American forestry, fills a long-standing need. We hope that it will be adequately staffed, equipped, and financed to carry out its important assignment.

Western Forestry & Conservation Association is convinced that chemicals will long continue to serve an important role in forest protection. We are likewise convinced that control by natural means is the goal toward which foresters must continue to work, and work increasingly, to attain. The natural means to which we refer are manipulation of forests to make them more vigorous and more resistant to insects, encouragement of beneficial insects that feed upon harmful ones, and use of organisms that cause diseases in insects.

We are encouraged by the progress being made to develop and use these means and by the emphasis being placed upon this kind of research by the Forest Service throughout the country. Specifically, the development of such outstanding facilities as the Forestry Sciences Laboratory on the campus of Oregon State University in Corvallis is most encouraging. This research needs to be speeded up to effect long-lasting control and to minimize the use of chemicals in situations where their use is potentially hazardous.

Another problem of very real concern to forest industries of the West and conservationists is the increasing forest damage that animals and wildlife are causing each year. These losses take many forms. Rodents such as mice, shrews, chipmunks, and ground squirrels consume vast quantities of tree seed that are vitally necessary to start a new forest crop. Even after seedlings are started, all too frequently they are killed or maimed by clipping of rodents, rabbits, or mountain beaver, and, as they get larger, by browsing and rebrowsing of deer and elk. Even trees of pole size or larger are killed or crippled by the nibbling, gnawing, or clawing of animals such as porcupine and black bear.

Estimated damages to the forests from such animal activity total $15 million yearly in Oregon and Washington alone. This includes the direct losses of wasted investments in planting and seeding operations as well as the indirect losses represented by thousands of forest acres made less productive. Inevitably, the results are reduced timber growth, a longer period of years for maturing a timber crop, reduced timber yields regionally and nationally, and a substantial increase in costs of growing timber. This means less timber available for cutting this year and next and fewer jobs in the timber-harvesting and wood-using industries.

For these compelling reasons, our association has for several years consistently endeavored to bring about better recognition of the importance of the animal damage problem. We have strongly supported research aimed toward the de-

velopment of workable methods of control. We are, therefore, deeply gratified that a modest increase for the animal damage research project at Olympia, Wash., was included in the President's budget for the U.S. Forest Service. Scientists at the Olympia Laboratory, though too few in number, are working on forest wildlife problems of concern throughout the West. Progress in this research program will directly benefit timber-growing efforts in all the Western States.

Basic information relative to the acreage, volume, growth, use, and loss of the forest resources is necessary for the orderly planning of the best use and management of these resources. Many major problems have plagued the forest economy during the past few years. Solutions to these problems are often dependent upon an understanding of forest resource conditions. Knowledge of these conditions, public and private, has been inadequate or outdated.

For example, the comprehensive report "Timber Resources for America's Future" is over 10 years old. The new timber appraisal in the making at this time will have to be made up for some States and counties from inventories that are well over 10 years old. Estimates of growth, cut, and mortality especially need strengthening. These are becoming more and more directly responsible for the allowable cut levels as the excess of virgin sawtimber stands is reduced and replaced with young stands. The responsibilities of the nationwide Forest Survey are such that an expanded program is much needed to provide better, more current information on both public and private lands. The Western Forestry and Conservation Association commends the Administration for recently removing the budget ceiling on this project and heartily endorses the proposed increase.

The association is pleased with the foresight shown in proposing each of these modest but badly-needed budget increases for research in forestry. We urge that this research be further strengthened whenever budgetary circumstances will permit the necessary increases. We in the West are fully aware of the increasing demands that our growing Nation will place upon our forest resources. Research must play the key role in providing the basis for intensive management of both public and private forest lands.

Sincerely,

(S) Hardy Glascock
H. R. Glascock, Jr.
*Forest Counsel.*

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Statement by Assistant Commissioner, Kentucky Department of Conservation, Urging Increased Appropriations for Timber Management Research

Senator Hayden, members of the Senate Subcommittee on Appropriations for the Department of Interior and Related Agencies, I am Robert Montgomery, assistant commissioner of the Kentucky Department of Conservation.

I would like to recommend a $175,000 additional appropriation this year for the Forest Service to strengthen their research in Kentucky on the management of our timber resources. In 1954 the Congress made a small appropriation for this work which is headquartered at Berea, Ky. The funds made available then, $50,000, have remained the same and are adequate for only a very small program of research in timber management methods. The problems involved are numerous, complex, and immense—far beyond the capacity of the small group of scientists the Forest Service is able to support at Berea.

Kentucky has a large and important forest resource. Some 11,500,000 acres, or 45 percent of our State, is in forests. Eastern Kentucky is truly a land of forests. Here we have 6 million acres in timber land; this is 75 percent of the entire area. Quite probably eastern Kentucky will, because of the mountainous terrain, continue to be the most heavily forested section of our State.

Here, too, we have the most economically depressed part of the State. There is presently an oversupply of labor and the prospects are that this situation will become more acute in the future. Eastern Kentucky is a significant and typical part of Appalachia, designated by President Johnson as our Nation's most distressed region.

In his recent agriculture message to the Congress, President Johnson stated that: "Almost one-half of our Nation's poor live in rural areas." He further stated that: "Economically distressed areas often exist where there are heavy concentrations of forest land." And he went on to say: "I am directing the Department of Agriculture to—accelerate forest research to find—better timber management techniques—." Our situation in eastern Kentucky certainly is typical of the conditions President Johnson recognizes. Furthermore, the in-

crease in research appropriations that I am recommending is exactly the same as one of those contained in his directive to the Department of Agriculture.

Presently the forests of eastern Kentucky are producing only a small part of their high potential. They have been overcut, damaged by fire and pests, and abused. Consequently, 85 percent of the timber is in small trees and poor species that do not have a good commercial market. Even so, these forests are producing about $20 million worth of logs, bolts, staves and other products every year. Their capacity to produce is much higher. The soils and the climate are excellent for forestry—95 percent of the area is classed as good to excellent for timber growth. If given proper protection and management, production from these forests could, within a reasonable period, be quadrupled in volume. At the same time, better quality trees of preferred species would be grown, bringing a much higher income to the owner and providing a supply of raw material more attractive to wood-using industries.

So, if our forests are brought into full timber production they will absorb a substantial part of the oversupply of labor. Our forests are living plant communities that can be cured of their present ills, nurtured and developed into full vigor, and made fully productive. They are renewable and an economy built upon the development and use of our renewable timber resources is a healthy, secure, and permanent economy. In addition to improving the economy of depressed rural communities, a well managed, productive forest is an unexcelled protector of watersheds, provider of many forms of recreation and supplier of game and fish.

Before we can efficiently and fully reap the many economic and social benefits of our forest resources, we must have two basic programs:

First. We must have research that gives us the knowledge and methods required to properly manage and produce high quality timber and other forest crops in the shortest possible time. We need to determine the best species of trees to grow on the soils we have. We need to develop improved methods for increasing the growth and quality of the timber stands now existing and for cutting these forests to obtain the best new timber stands possible. And we need to find out the number of trees to grow per acre to obtain the most rapid production of wood on the best trees.

Furthermore, we need research to determine how timber-related crops can be grown at a profit in the same forest that is growing valuable hardwood timber. Some of these crops are, for example, Christmas trees, fruits, nuts, and berries, and medicinal, edible, and decorative plants. These crops may offer splendid opportunities for woodland owners to obtain supplementary income from their properties. Research in cultural methods for these nontimber but forest associated crops may well pay early dividends in distressed areas such as eastern Kentucky.

Second. The second necessary basic program is the application of research results. Until the results of research are put to work, they have little practical value.

The State of Kentucky has recognized this need and has strengthened substantially its work in assisting timberland owners to protect and manage their properties. Today, my department employs 35 trained foresters to work directly with woodland owners. These men are applying the results of past and current research in their day-to-day activities. But they sorely need better knowledge about timber management so that they can better solve the modern-day problems they now encounter. So, we have the men and the organization to put new methods into practice but we do not have adequate research backing for our program.

I am firmly convinced that a stronger timber management research effort by the Forest Service will strengthen greatly the forestry assistance program we have underway. And I am just as firmly convinced that, together, these two programs will give us better forests and lead to a more permanent prosperity, especially in the depressed areas of eastern Kentucky. Therefore, I recommend without reservation that you add $175,000 to the Forest Service budget to strengthen timber management research at their office at Berea, Ky.

LETTER FROM NATIONAL ARBORIST ASSOCIATION URGING APPROVAL OF FUNDS FOR RESEARCH ON DUTCH ELM DISEASE

FEBRUARY 18, 1964.

Hon. CARL HAYDEN,
*Chairman, Subcommittee on Department of the Interior and Related Agencies, Senate Committee on Appropriations, U.S. Senate, Washington, D.C.*

DEAR SENATOR HAYDEN: The National Arborist Association is composed of over 200 commercial shade tree service companies distributed in 35 states. These companies provide tree service to home owners, municipalities, institutions, etc. An important part of the arborist's work in the 29 States where the Dutch elm disease occurs is in connection with efforts to control this disease.

The Dutch elm disease is caused by a fungus that is transmitted from tree to tree by elm bark beetles. Present control measures consist of spraying the elm trees with insecticides to prevent the beetles from chewing into the bark and inoculating the tree with spores of the disease-producing fungus. A second important part of control is to remove and destroy elms which do become diseased so that they will not serve as sources from which beetles will emerge and carry the disease to healthy trees. When carried out thoroughly these measures will hold the losses of elms from Dutch elm disease to 2 percent or less. While this control is good, there are some problems involved in conducting such a program in cities with thousands of elms and as a result many communities have not carried on effective programs.

It is very possible that with the large number of new chemicals available today, adequate research in the field of systemic treatments will develop a more simple and more effective control for this disease. An effective treatment for the Dutch elm disease that could be applied through the roots or bark is entirely possible and certainly would be preferred to the present control by sanitation and spraying. Research carried on at the University of Wisconsin has shown that a product called "Bidrin," when injected into elms, is somewhat effective in preventing inoculation with the Dutch elm fungus by the bark beetle.

There is a need for a thorough study and evaluation of different systemic insecticides as possible controls for the Dutch elm disease. From such a study, an effective and entirely safe treatment for this serious disease is a good possibility. This work could be carried on by the Division of Forest Insects, U.S. Forest Service, at the Central States Forest Experiment Station, Delaware, Ohio.

The National Arborist Association respectfully asks that the Committee on Appropriations give consideration to adequate provision in the Forest Service budget sufficient to carry out this research.

We also ask that this letter be included in the printed record of the hearings on this item.

Sincerely yours,

PAUL E. TILFORD,
*Executive Secretary.*

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LETTER FROM MR. OLIVER D. DILLER URGING APPROVAL OF FUNDS FOR RESEARCH ON DUTCH ELM DISEASE

WOOSTER, OHIO, *February 19, 1964.*

Hon. CARL HAYDEN,
*Senate Subcommittee on Appropriations for the Department of Interior and Related Agencies, Senate Office Building, Washington, D.C.*

DEAR SIR: As chairman of the Wooster, Ohio, Citizens Dutch Elm Disease Control Committee, I am writing to respectfully request that you and your subcommittee strengthen sharply U.S. Forest Service research in the control of Dutch elm disease.

In my town of Wooster we have conducted a Dutch elm disease control program since 1959. This program has consisted of annually spraying all healthy elms and promptly removing and destroying all elms killed by Dutch elm disease. These are the recommendations made by scientists at the Delaware, Ohio, laboratories of the Forest Service. We have succeeded in holding our losses from this disease to an average of 2 percent per year, but we still are faced with several serious problems. Some of these problems are the difficulty of adequately spraying all elms at the correct time; the inherent hazard to birds and wildlife from the use of highly concentrated insecticides; and, of course, the high cost of such a program that must go on year after year. I am certain that with adequate support

the U.S. Forest Service research people at Delaware can and will develop much more effective and efficient methods for protecting our elms.

From my close association with Dutch elm disease control I have become very well acquainted with the seriousness of this problem. Perhaps a few figures will illustrate the enormity of this problem in the United States. Already this disease occurs in 29 States and the District of Columbia. Hundreds of towns and cities are yearly faced with the heavy expense of either attempting control or merely removing dead trees. Published information shows that losses from Dutch elm disease in some communities can and have run as high as 30 percent of the trees per year. For example, the city of Urbana, Ill., after some 10 years has less than 6 percent of its original elm population. Cost of removing dead trees in many cities runs into millions of dollars to say nothing of the lost esthetic value of many elms that were 50 to over 100 years of age.

With the many recent advances in the development of new and more effective chemicals, along with safer methods of their use, it is my opinion that an expanded research program on Dutch elm disease control is timely. Such a program should produce control methods that will result in great savings to the citizens of many Ohio towns and cities where this disease occurs or surely will occur in a few years.

A part of my duties as chairman of our citizens committee involves keeping up to date on new research in control of Dutch elm disease. Thus, I am well acquainted with the work the Forest Service is doing at their Delaware, Ohio, laboratories. In my opinion, this work should be expanded four or five times over its present size.

Since research in the control of Dutch elm disease is so important to so many people and communities in Ohio and other Eastern States, I hope that you and your subcommittee will provide increased funds for this Forest Service research program.

I had hoped to present a detailed statement during your public hearings this year but obligations here prevent my doing so. Thus, I would greatly appreciate your making this letter a part of the hearing record.

Please call on me if you would like further information about my request for an expanded Forest Service research program in the control of Dutch elm disease.

Very truly yours,

OLIVER D. DILLER,
*Chairman, Wooster Citizens Dutch Elm Disease Control Committee.*

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STATEMENT BY CHARLES H. LEWIS, JR., LOUISIANA FORESTRY ASSOCIATION, REGARDING STAFFING OF ALEXANDRIA, LA., FOREST PRODUCTS RESEARCH LABORATORY

Mr. Chairman, members of the committee, my name is Charles H. Lewis, Jr. I am executive director of the Louisiana Forestry Association, which was formed in 1947. Our membership numbers some 2,700, and is composed of timber-land owners, forest products manufacturers, and businessmen from all walks of life who are concerned with forest resources and their conversion into consumer goods. More than 1,000 of our members are certified tree farmers who are growing a crop of timber on more than 3 million acres of land.

Last year I appeared before your committee to present a request for funds to complete phase 2 construction of the Forest Products Research Laboratory in Alexandria, La., designed to serve the southern pine region. Construction funds ($450,000) for phase 1 of the laboratory were authorized by the Congress in the fiscal year 1963 budget. This was a two-stage construction project, begun in 1963, scheduled for completion in September 1964.

The funds ($450,000) we requested in February 1963 for phase 2 construction of the laboratory were later made available in the budget for fiscal year 1964, and we wish to express our thanks to you at this time.

We were disappointed to learn that no operational funds have been provided in the President's budget for fiscal year 1965 to activate this facility. The laboratory was designed to accommodate 10 forest products research scientists. Thus far, only one man has been employed. His name is Dr. Peter Kock, who is the project leader. This man is immensely capable. We have spent considerable time studying his initial research in wood lamination and drying. We have also reviewed his proposed work plan for 1964 and 1965. We feel this program is properly oriented and goes directly to the heart of the most pressing problems facing the southern pine industry. Needless to say, we are most anxious that these plans be implemented as quickly as possible.

Recruiting timber scientists who are capable of conducting high-level research in the fields of adhesives, wood lamination, drying, fabrication, and engineering is a difficult task. Men of this caliber are scarce. It will take time to locate them. We don't believe this can or should be done overnight. We do feel it is important to start this search immediately.

The Chief of the Forest Service estimates that $250,000 in operating funds will be required to finance the research of these 10 men. It is our recommendation that the complete staffing job be spread over a 2-year period. We are therefore requesting that this committee authorize operational funds of $150,000 for fiscal year 1965 to begin staffing the Forest Products Research Laboratory at Alexandria. It will then be possible to move ahead with the purchase of essential machinery and equipment. It will also permit the employment of scientists as quickly as they can be located during the next 12 months.

It is our hope that this committee will consider operational funds for this laboratory in the same light you considered the original project—as a two-stage affair, with a substantial portion of the funds being provided for fiscal year 1965 and the remainder in 1966.

Mr. Chairman and members of the committee, I wish time would permit a review of significant changes which are taking place in the forest products industry today. I would like to tell you of the development of the southern pine plywood industry, which is being spawned by pioneers of this industry from the Pacific Northwest. Recent research in the fields of glues and lamination, conducted by the U.S. Forest Products Laboratory at Madison, Wis., in 1960 and 1961, have made this possible. The softwood plywood industry is the fastest growing nondefense industry in the United States. The manufacture of particleboard, and laminated wood arches and beams are only a step behind.

Southern pine has strength qualities which, in some respects, make it the most desirable species for all three purposes, in the United States.

We now have in the South, especially in the central and western gulf region, a real abundance of new forests suitable for these purposes. This, indeed, has become, as the Chief of the Forest Service has often said, the woodpile of America for the next generation.

The economic progress of this entire area is largely dependent upon the progress of research in the field of wood products, especially as it relates to adhesives, lamination, and engineering.

We sincerely hope this committee will provide the U.S. Forest Service with sufficient funds to move ahead with this program at the new southern Forest Products Laboratory at Alexandria, La.

Mr. Chairman, members of the committee, we wish to especially point out that we in no way wish to detract from the excellent work being done by the U.S. Forest Products Laboratory at Madison, Wis., and we are pleased to see that the President has included in his budget sufficient funds to expand the operations of that facility. This is good. The laboratory at Alexandria will complement findings of the Madison laboratory and orient them to the specific problems relating to expanded uses for southern pine.

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STATEMENT OF MR. WARREN E. DIETRICH, LOUISIANA FORESTRY ASSOCIATION, URGING STAFFING OF ALEXANDRIA, LA., FOREST PRODUCTS RESEARCH LABORATORY

Gentlemen, my name is Warren E. Dietrich, I am general manager of the Pardee Co., owner of 61,000 acres of southern pine and hardwood timberland.

We are entirely dependent upon the forest products industry for income from our investments in timberland. We completely endorse the need for additional funds to staff the Forest Products Research Laboratory at Alexandria, La., as presented by C. H. Lewis, Jr., in behalf of the Louisiana Forestry Association.

Mr. Chairman, members of the committee, there are five research units now stationed at Alexandria. They are: Forest Management Research, Forest Fire Research, Forest Range Research, Forest Insect Research, and Forest Products Research. All have regional responsibilities.

Insect Research and Forest Products Research are new divisions which have been established recently at Alexandria. Neither is adequately staffed to accomplish the mission for which they have been created.

The needs for the Forest Products Research division have been adequately presented by my colleague, Mr. Lewis. I would like to bring to your attention the need for operational funds of the other new division, Forest Insects.

The Louisiana Forestry Association maintains a research committee which annually reviews the performance and needs of each of these five divisions. Timberland owners and forest products manufacturers are active cooperators in research projects of all these units.

Through our association magazine, Forests & People, we publicize the results of each of these research units (we present reprints of 18 such articles to indicate our sincere interest in the work of this station). As a consequence, the findings of the Alexandria Research Center are quickly applied by forest-land owners and the forest industry in the region served by this institution.

We consider ourselves partners in the research effort of this station. We also consider ourselves "watchdogs" over this station, to see that (1) research is properly oriented, and (2) research is efficiently and effectively conducted. For these reasons, we believe the Alexandria, La., Research Center is the most productive of all such U.S. Forest Service installations.

The staff of the Forest Insect Research unit consists of five scientists, with two helpers and one clerk. With the regional responsibilities assigned to this section, the scientists are on the road constantly, checking insect outbreaks in the southern pine region, from Texas through Florida. The two technicians are insufficient to conduct the necessary laboratory work, and record the findings of these scientists as they explore new outbreaks and possible control measures.

The central and west gulf region is currently experiencing its second consecutive dry cycle. We are at least 30 inches deficient in rainfall, over a 24-month period. As a result, the spread of the southern pine beetle has reached near-epidemic proportions. As yet, no satisfactory control has been developed. About all we can do, at present, is salvage timber which has been killed by the southern pine beetle.

For several years now, losses to insects and disease in the southern pine region have exceeded forest fire losses to a considerable degree.

There is no comparable area in the world in which a more intensive forestry effort has been conducted than in the southern gulf region. It is, indeed, in this area that the raw material requirements for the timber industry over the next four decades must be met. It is imperative therefore that we intensify our efforts to find a satisfactory means of controlling insect predators of the southern pine forests. Although the southern pine beetle, at the moment, appears to be the most serious menace, there are others which have been equally as damaging, and at any time could reach epidemic proportions, as has the southern pine beetle. I refer specifically to the Ips beetle and the sawfly.

At the moment, it is our feeling that the five scientists are sufficient to provide direction to the control effort now underway at the Alexandria Research Center. It is the need for supporting assistance to make these scientists productive that we ask you to consider.

Although the President's fiscal year 1965 budget does include a slight increase for forest insect research, nationwide, we do not feel there are sufficient funds available to provide for the employment of the two additional insect research technicians needed at the Alexandria Research Center.

We therefore ask that your committee recommend the appropriation of an additional $50,000 to the Alexandria Research Center, for this purpose.

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A LETTER FROM MR. LYNN SANDBERG, UPPER PENINSULA COMMITTEE ON AREA PROBLEMS, SUPPORTING THE BUDGET ESTIMATE FOR FOREST SURVEY

FEBRUARY 24, 1964.

Hon. CARL HAYDEN,
*U.S. Senator, Senate Office Building,*
*Washington, D.C.*

DEAR MR. HAYDEN: Last year we supported an increased authorization for forest resource investigations of the U.S. Forest Service. I am glad to see that this became law even though no extra funds were appropriated. In the Upper Peninsula of Michigan, we urgently need a resurvey of our timber, to replace the present statistics that date back to 1946.

This year the Federal budget has a small increase for this work. I am hoping that it will be approved and that a good part of it will be assigned to our area. The Forest Service is starting a new timber inventory in the Upper Peninsula this year, but the pace is slow and the need for new statistics is acute. Our planning for industrial development and our efforts to attract more industries both are stymied by lack of reliable data on our timber supplies.

We will have new aerial photographs this year for the whole Upper Peninsula, which includes some 9 million acres of commercial forest land. Timber is one of our prime sources of wealth here. We want these new aerial photos to be used while they are new, to give us a new forest inventory.

I would like to support the increased amount for forest resource investigations and suggest that it is needed now in Michigan. I would be glad if you would make my statement a part of the record of your hearings on the bill.

Very truly yours,

UPPER PENINSULA COMMITTEE ON AREA PROBLEMS,
LYNN SANDBERG, *Chairman.*

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LETTER FROM MR. DONALD LINVILLE, AMERICAN HARDBOARD ASSOCIATION, SUPPORTING THE BUDGET ESTIMATE FOR EXPANSION OF THE FOREST PRODUCTS LABORATORY

FEBRUARY 3, 1964.

Hon. CARL HAYDEN,
*Senate Office Building, Washington, D.C.*

DEAR SENATOR HAYDEN: A subcommittee of the Appropriations Committee will shortly review budget items to be presented by the Department of Agriculture. In the recommended budget is an item of $3,800,000 for the Forest Products Laboratory, Madison, Wis., for the construction of a building to be devoted to research in the area of pulp, paper, and wood chemistry.

This association, which represents 12 of the 15 domestic manufacturers of hardboard who produce approximately 97 percent of the domestic production of this wood product, wishes to support the request of this agency for this appropriation, and it is our hope that this item will be retained in the budget. The Forest Products Laboratory at Madison has in the past and continues to perform an outstanding service to the entire industry in the field of research and it is for this reason that I most earnestly ask your support.

Sincerely,

AMERICAN HARDBOARD ASSOCIATION,
DONALD LINVILLE,
*Executive Secretary.*

PRESIDENTIAL MESSAGE (H. DOC. 240)

CLERK'S NOTE.—On March 9, 1964, the President transmitted to the Congress proposed reductions in the fiscal year 1965 budget (H. Doc. 240, 88th Cong., 2d sess.). It is proposed that forest protection and utilization, forest land management be reduced by $500,000; and that forest roads and trails (liquidation of contract authorization) be reduced by $300,000.

The effect of these reductions is set forth below.

| | |
|---|---|
| Forest protection and utilization (forest land management): | |
| (*a*) Reforestation and timber stand improvement | −$300,000 |
| (*b*) Recreation public use | −100,000 |
| (*c*) Structural improvements for fire and general purposes | −100,000 |
| Subtotal, forest protection and utilization | −500,000 |
| (*d*) Forest roads and trails | −300,000 |
| Total, all appropriations | −800,000 |

(*a*) Reforestation reduced 4,000 acres.
(*b*) Number of family camp and picnic units to be constructed reduced by 100.
(*c*) Elimination of construction of a barracks at Redmond Air Base, Oreg.
(*d*) Planned road construction reduced by 20 miles.

The related employment reductions are:

| | Permanent | Other | Total |
|---|---|---|---|
| Man-years: | | | |
| Forest protection and utilization | −20 | −25 | −45 |
| Forest roads and trails | −10 | −8 | −18 |
| Total | −30 | −33 | −63 |
| End-of-year employment: | | | |
| Forest protection and utilization | −20 | −101 | −121 |
| Forest roads and trails | −15 | −25 | −40 |
| Total | −35 | −126 | −161 |

COMMITTEE RECESS

Senator BYRD. The committee will recess until 10 o'clock, Monday morning, March 2, at which time the remainder of the Department of Interior agencies and a number of small independent agencies will appear before the subcommittee and present testimony on behalf of the fiscal year 1965 budget requests.

(Whereupon, at 1:15 p.m., Friday, February 28, 1964, the subcommittee adjourned to reconvene Monday, March 2, 1964, at 10 a.m.)

# DEPARTMENT OF INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1965

MONDAY, MARCH 2, 1964

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, D.C.*

The subcommittee met at 10 a.m., pursuant to recess, in room 1223, New Senate Office Building, Hon. Alan Bible temporarily presiding.
Present: Chairman Hayden, Senators Bible, McGee, and Bartlett.

## DEPARTMENT OF THE INTERIOR

### OFFICE OF THE SECRETARY

### STATEMENTS OF D. OTIS BEASLEY, ADMINISTRATIVE ASSISTANT SECRETARY, OFFICE OF THE SECRETARY; SIDNEY D. LARSON, DIRECTOR OF BUDGET; AND DALE L. ROTHROCK, FINANCE OFFICER

1965 BUDGET REQUEST

Senator BIBLE. The subcommittee will come to order.
Our first item this morning is for the Office of the Secretary.
The justification material will be placed in the record.
(The justification statement referred to follows:)

JUSTIFICATION STATEMENT

The estimate for the fiscal year 1965 for the Office of the Secretary is $4,125,000 an increase of $269,975 over 1964. The increase includes $82,000 for increased pay costs under the Federal Employees Act of 1962, and $187,975 for general strengthening in certain areas.

The appropriation for the Office of the Secretary finances the salaries and expenses of the Secretary, the Under Secretary, the assistant secretaries, the administrative assistant secretary, the resources program staff and the Division of Information, with their supporting staffs. The Secretary and the supporting staffs provide general direction, guidance, coordination, and service to all the bureaus and offices of the Department. The programs carried on in the Department are many and diversified. They have grown in size and importance during the past several years. New responsibilities have been placed on the Department. Certain of the central staff and service functions of the Office of the Secretary have not kept pace with the growth in activities and responsibilities of the Department. Some increases, although small, are requested for the purpose of strengthening a few of the areas where additional help is urgently needed.

In a special effort to obtain better management and provide improved service without a major increase in personnel, some reorganization in the administrative management area, which is under the Administrative Assistant Secretary, has been effected. In the main, this involved the establishment of the Office of Survey and Review and the Office of Management Operations with the transfer of the functions of the Division of Inspection, the Division of Administrative Services, and the Division of Security to the new offices.

During the past several years certain of the positions which had previously been authorized have had to be held vacant because of increased salary costs resulting from within-grade promotions and reallocations of positions. Of the increase, therefore, $107,200 is requested to make up a portion of the funds needed to fill currently established positions. The remainder of the increase, $80,775, is requested for seven new positions and for personnel benefits and other expenses.

| | |
|---|---|
| Appropriation, 1963 | $3,482,050 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration | 2,037 |
| Total available, 1963 | 3,480,013 |
| Appropriation, 1964 | 3,858,400 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration | 3,375 |
| Total available, 1964 | 3,855,025 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | |
|---|---|
| To provide for increased pay costs for fiscal year 1964 positions | 82,000 |
| Additional assistance in Office of Under Secretary | 16,000 |
| To provide for strengthening of staffs in program areas of water and power and mineral resources | 26,975 |
| To provide for increased emphasis on management analysis, guidance, improvement and services | 130,000 |
| For replacement of equipment | 15,000 |
| Net increase, 1965 | 269,975 |
| Budget estimate, 1965 | 4,125,000 |

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 | | |
|---|---|---|---|---|
| | | Total appropriation | Transfers [1] | Amount available |
| 1. Departmental direction | $653,739 | $590,400 | | $590,400 |
| 2. Program direction and coordination | 1,088,722 | 1,357,900 | $3,375 | 1,354,525 |
| 3. Administrative management services | 1,522,187 | 1,780,400 | | 1,780,400 |
| 4. General services | 133,896 | 129,700 | | 129,700 |
| Unobligated balance lapsing | 82,469 | | | |
| Total | 3,480,013 | 3,858,400 | 3,375 | 3,855,025 |

[1] Transferred to General Services Administration.

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. Departmental direction | $652,739 | $590,400 | $616,300 | +$25,900 | +$9,900 | +$16,000 |
| 2. Program direction and coordination | 1,088,722 | 1,354,525 | 1,407,600 | +53,075 | +26,100 | +26,975 |
| 3. Administrative management services | 1,522,187 | 1,780,400 | 1,954,000 | +173,600 | +43,600 | +130,000 |
| 4. General services | 133,896 | 129,700 | 147,100 | +17,400 | +2,400 | +15,00 |
| Unobligated balance lapsing | 82,469 | | | | | |
| Total | 3,480,013 | 3,855,025 | 4,125,000 | + 269,975 | +82,000 | +187,975 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

*Analysis of increases*

| | Estimate 1964 | | Increases | | | | | | | Estimate 1965 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Positions | Funds | New positions | | Other personnel compensation | Pay costs current positions | Personnel benefits | Other objects | Total increases | Positions | Funds |
| | | | Number | Salaries | | | | | | | |
| Departmental direction: | | | | | | | | | | | |
| Office of the Secretary | 33 | 360,700 | | | | 5,600 | | | 5,600 | 33 | 366,300 |
| Office of the Under Secretary | 7 | 86,200 | | | 15,000 | 1,000 | 1,000 | | 17,000 | 7 | 103,200 |
| Division of Information | 13 | 143,500 | | | | 3,300 | | | 3,300 | 13 | 146,800 |
| Total | 53 | 590,400 | | | 15,000 | 9,900 | 1,000 | | 25,900 | 53 | 616,300 |
| Program direction and coordination: | | | | | | | | | | | |
| Assistant Secretary, water and power | 22 | 283,000 | | | 13,000 | 4,400 | 900 | 600 | 18,900 | 22 | 301,900 |
| Assistant Secretary, mineral resources | 17 | 202,500 | 1 | 11,300 | | 4,300 | 800 | 375 | 16,775 | 18 | 219,275 |
| Assistant Secretary, public land management | 18 | 232,600 | | | | 4,300 | | | 4,300 | 18 | 236,900 |
| Assistant Secretary, fish and wildlife | 10 | 102,600 | | | | 1,500 | | | 1,500 | 10 | 104,100 |
| Resources program staff | 37 | 533,825 | | | | 11,600 | | | 11,600 | 37 | 545,425 |
| Total | 104 | 1,354,525 | 1 | 11,300 | 13,000 | 26,100 | 1,700 | 975 | 53,075 | 105 | 1,407,600 |
| Administrative management services: | | | | | | | | | | | |
| Administrative Assistant Secretary | 5 | 67,700 | | | | 600 | | | 600 | 5 | 68,300 |
| Office of Survey and Review | 32 | 339,400 | | | 73,200 | 8,400 | 5,800 | | 87,400 | 32 | 426,800 |
| Office of Management Operations | 80 | 658,400 | 4 | 19,000 | 6,000 | 15,800 | 2,000 | 1,000 | 43,800 | 84 | 702,200 |
| Division of Budget | 14 | 174,100 | | | | 5,100 | | | 5,100 | 14 | 179,200 |
| Division of Management Research | 14 | 162,400 | 2 | 21,500 | | 4,200 | 1,500 | | 27,200 | 16 | 189,600 |
| Division of Personnel Management | 32 | 348,000 | | | | 8,900 | | | 8,900 | 32 | 356,900 |
| Correspondence Control Office | 3 | 30,400 | | | | 600 | | | 600 | 3 | 31,000 |
| Total | 180 | 1,780,400 | 6 | 40,500 | 79,200 | 43,600 | 9,300 | 1,000 | 173,600 | 186 | 1,954,000 |
| General services | | 129,700 | | | | 2,400 | | 15,000 | 17,400 | | 147,100 |
| Total | 337 | 3,855,025 | 7 | 51,800 | 107,200 | 82,000 | 12,000 | 16,975 | 269,975 | 344 | 4,125,000 |

DEPARTMENTAL DIRECTION

*Analysis by subactivities*

| Subactivity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Office of the Secretary | $436,401 | $360,700 | $366,300 | +$5,600 | +$5,600 | |
| (b) Office of the Under Secretary | 93,443 | 86,200 | 103,200 | +17,000 | +1,000 | +$16,000 |
| (c) Division of Information | 122,895 | 143,500 | 146,800 | +3,300 | +3,300 | |
| Total | 652,739 | 590,400 | 616,300 | +25,900 | +9,900 | +16,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

(a) *Office of the Secretary, $366,300*

The estimate for 1965 is $366,300, an increase of $5,600 over 1964. This increase is for pay costs. This estimate provides for the salary and expenses of the Secretary and a staff of 32 employees in his immediate office. Included is the Assistant to the Secretary for Research who is responsible for policy direction, administration, and development of complex research programs throughout the Department. Other assistants to the Secretary serve as personal aides and confidential advisers to the Secretary, and may act on behalf of the Secretary on specific matters referred to them for disposition, or represent the Secretary in various executive office and interagency groups.

(b) *Office of the Under Secretary, $103,200*

The estimate includes an increase of $17,000 over the amount available for the current year, and provides for the salary and expenses of the Under Secretary and a staff of six employees. The Under Secretary assists the Secretary in the discharge of his duties and, in the absence of the latter, performs his duties. The increase provides $1,000 for pay costs and $16,000 to permit filling a GS–16 assistant position. As a result of some adjustment in lower grade positions, no increase in total positions is necessary because of this, but the available funds are insufficient to permit filling the position at present. It is necessary however, that the Under Secretary have top level staff assistance and the estimate provides for a deputy and a GS–16 assistant for this purpose.

During the past several years the workload in the Under Secretary's Office has increased considerably, particularly in those areas for which the Under Secretary is directly responsible. The assistant would provide top staff assistance on continuing and specific assignments, and be available to represent the Under Secretary at meetings and conferences as required.

(c) *Division of Information, $146,800*

The estimate for 1965 is $146,800, an increase of $3,300 over 1964 for pay costs on current positions.

The small staff of the Division of Information is responsible for technical and general functional supervision over all information activities of the Department. This includes providing basic information services for the Secretariat and other officers; directing the coordination, review and distribution of special information developed for all types of media; initiating information programs of a department-wide nature involving more than a score of bureaus and offices; and guiding and assisting the many bureaus and offices of the Department in their informational activities.

The estimate for 1965 will permit continuation of a minimum program of informational activities.

PROGRAM DIRECTION AND COORDINATION

*Analysis of subactivities*

| Subactivity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Assistant Secretary for Water and Power | $248,293 | $283,000 | $301,900 | +$18,900 | +$4,400 | +$14,500 |
| (b) Assistant Secretary for Mineral Resources | 155,032 | 202,500 | 219,275 | +16,775 | +4,300 | +12,475 |
| (c) Assistant Secretary for Public Land Management | 183,937 | 232,600 | 236,900 | +4,300 | +4,300 | ---------- |
| (d) Assistant Secretary for Fish and Wildlife | 87,880 | 102,600 | 104,100 | +1,500 | +1,500 | ---------- |
| (e) Resources program staff | 413,580 | 533,825 | 545,425 | +11,600 | +11,600 | ---------- |
| Total | 1,088,722 | 1,354,525 | 1,407,600 | +53,075 | +26,100 | +26,975 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

(a) *Assistant Secretary for Water and Power, $301,900*

The estimate for 1965 is $301,900, an increase of $18,900 over 1964. The increase includes $4,400 for increased pay costs and $14,500 which is required primarily for water and power studies. This estimate covers the salaries and expenses of the Assistant Secretary for Water and Power and a staff of 21 employees in his Office. The Assistant Secretary discharges the duties of the Secretary with respect to the development of water and power. He exercises secretarial direction and supervision over the Bureau of Reclamation, Bonneville Power Administration, Southeastern Power Administration, Southwestern Power Administration, and the Office of Saline Water. He is also responsible for carrying out the defense functions of the Secretary with respect to electric power.

The increase of $14,500 is requested for the purpose of providing funds for filling one GS–14 engineer position with related personnel benefits and a small amount for travel. This engineer is needed for conducting engineering and economic studies relating to marketing activities which the Department may have in the development of water and power resources in areas, primarily outside the areas presently served by the four power marketing agencies. No increase in total positions is necessary for this, but because of within grade promotions and some changes in organization in this area, funds are insufficient to fill all positions authorized.

As requested by the Corps of Engineers in response to a resolution of the Public Works Committee of the Senate, full-time employees were assigned during the current fiscal year to begin coordinated planning efforts to assist in its conduct of comprehensive investigations of water and land resource development in the Ohio River Basin.

Indications are that the Department will be called upon to perform similar studies for the Susquehanna, the Hudson, the Connecticut, and possibly other river basin areas where potential power developments exist and which may involve marketing responsibilities by the Secretary of the Interior. These studies will embrace participation in meetings, review of land and resources studies prepared in the area, suggestions of additional studies which might be required, consideration of design characteristics involved in development of power resources in the area, surveys of load requirements, and miscellaneous studies as required from time to time. The studies will be of a comprehensive and broad nature and are essential in early participation in the power and water resource development functions during the initial planning stages to eliminate and avoid changes in plans that could prove costly at later stages of development. Funds to initiate this program were appropriated in the current fiscal year. The progress of these studies clearly demonstrates the need for filling this position in order that these responsibilities can be adequately implemented.

In view of the importance of this program and the increase in workload incident thereto, it is felt that the requested increase in the Office of the Assistant Secretary is both warranted and essential.

(b) *Assistant Secretary for Mineral Resources, $219,275*

The estimate for the Assistant Secretary for Mineral Resources includes an increase of $16,775 which consists of $4,300 for pay costs and $12,475 for one additional position with expenses. The total estimate provides for the salary and expenses of the Assistant Secretary and a staff of 17 employees. The Assistant Secretary discharges the duties of the Secretary with respect to the development and utilization of minerals and fuels, including defense minerals activities. The Assistant Secretary exercises secretarial direction and supervision over the Bureau of Mines, Geological Survey, Office of Geography, Office of Minerals and Solid Fuels, Office of Oil and Gas, Office of Minerals Exploration, Office of Coal Research and the Oil Import Administration.

The increase will provide for the addition of a GS–13 economist, personnel benefits, and a small amount for other costs.

The staff economist is needed to perform staff service with special reference to the economic factors involved in existing or proposed mineral policies and programs of the Department. These duties were formerly performed by a staff member who has been assigned numerous additional high-level staff duties in the nature of liaison with other departments and participating in committee groups coordinating the increasing responsibilities of the Department in many fields, including energy, for example; this severely limiting his availability for staff economist functions.

(c) *Assistant Secretary for Public Land Management, $236,900*

The estimate includes an increase of $4,300 for pay costs but otherwise is the same as for 1964. It provides for the salary and expenses of the Assistant Secretary for Public Land Management and a staff of 17 employees assigned to his Office. The Assistant Secretary discharges the duties of the Secretary with respect to land utilization and management, territorial affairs, and Indian affairs. The Assistant Secretary exercises secretarial direction and supervision over the Bureau of Land Management, National Park Service, Bureau of Indian Affairs, Office of Territories, the Alaska Railroad, and the Bureau of Outdoor Recreation.

(d) *Assistant Secretary for Fish and Wildlife, $104,100*

The estimate for the salary and expenses of the Assistant Secretary for Fish and Wildlife and a staff of nine employees is the same as for 1964 except for an increase of $1,500 for pay costs. The Assistant Secretary for Fish and Wildlife discharges the duties of the Secretary with respect to the development, conservation, and utilization of the fish and wildlife resources of the Nation. The Assistant Secretary exercises secretarial direction and supervision over the Fish and Wildlife Service.

(e) *Resources program staff, $545,425*

The estimate for the fiscal year 1965 is the same as for 1964 except for $11,600 for pay costs.

The resources program staff provides a coordinating function unique to Interior: (1) specialized advisory staff service on new problems and technical advice to the Secretariat; (2) central staff service to the Secretary and Under Secretary in program planning; and (3) coordination of five principal activities of the various Department bureaus in the field and in Washington and activities of the Department with those of other departments and agencies.

The staff consists of highly qualified professional employees with varied backgrounds of training and experience in economics, engineering, political science, international affairs, forestry, soil conservation, fish and wildlife, water, power, and public lands who have a broad familiarity with field programs, policies, and procedures of the Department in addition to specialized knowledge of one or more particular fields.

In addition to serving as a central staff in the Office of the Secretary, the staff performs a coordinating role in five departmentwide and interdepartmental areas—international affairs, resource economics, program planning, field coordination, and area redevelopment. In the central staff function, the staff provides specialized advisory and consultative services to the Secretariat upon the request and provides central staff service to the Secreatry and Under Secretary in program planning. Also, the staff services which the resources program staff provides, involving assembly of data, preparation of necessary reports and briefing.

FIELD COORDINATION, RIVER BASIN PLANNING

Operating through regional field committees made up of representatives of all bureaus, regional coordinators act as departmental coordinators on program and

policy matters affecting more than one bureau. The regional coordinators chair the field committees and also serve as the Department representatives on interagency river basin committees comprised of Federal and State members.

PROGRAM PLANNING

Assists bureau program officers in developing long-range programs related to expected future natural resources requirements through establishment of comparable standards, criteria, and projections. Relates long-range planning reports to annual budget requests.

INTERNATIONAL ACTIVITIES

Coordinates Department's position on foreign trade in natural resource commodities; develops procedures for systematically providing technical assistance personnel to AID missions in underdeveloped countries. Prepares position papers for Secretariat.

RESOURCE ECONOMICS

Conducts special studies in natural resources economics, public works, investment, and returns; maintains liaison with Council of Economic Advisers, serves on Consumer Council and coordinates Interior's economic research functions.

AREA REDEVELOPMENT

Coordinates Interior's responsibilities under this new program through the bureaus on requests for project feasibility analysis and gives leadership to area and regional studies used as a basis for economic development.

In addition to serving as subject matter specialists to each of the above, RPS gives leadership in program development and special studies on new and unsolved problems facing the Secretary and the Department. Close liaison is maintained with the Science Adviser and the Interior Committee on Research and Development.

## ADMINISTRATIVE MANAGEMENT SERVICES

*Analysis by subactivities*

| Subactivity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| (a) Administrative Assistant Secretary | $65,434 | $67,700 | $68,300 | +$600 | +$600 | ---------- |
| (b) Office of Survey and Review | 190,401 | 339,400 | 426,800 | +87,400 | +8,400 | +$79,000 |
| (c) Office of Management Operations | 620,455 | 658,400 | 702,200 | +43,800 | +15,800 | +28,000 |
| (d) Division of Budget | 159,766 | 174,100 | 179,200 | +5,100 | +5,100 | ---------- |
| (e) Division of Management Research | 138,804 | 162,400 | 189,600 | +27,200 | +4,200 | +23,000 |
| (f) Division of Personnel Management | 309,872 | 348,000 | 356,900 | +8,900 | +8,900 | ---------- |
| (g) Correspondence Management Control | 37,455 | 30,400 | 31,000 | +600 | +600 | ---------- |
| Total | 1,522,187 | 1,780,400 | 1,954,000 | +173,600 | +43,600 | +130,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

(a) *Administrative Assistant Secretary, $68,300*

The estimate for the fiscal year 1965 includes an increase of $600 for pay costs. Provision is made in this estimate for the salary and expenses of the Administrative Assistant Secretary and a small staff of four employees in his office. The Administrative Assistant Secretary discharges the duties of the Secretary with respect to administrative management functions in the Department, and directs and supervises the offices and divisions listed above.

(b) *Office of Survey and Review, $426,800*

The estimate for the Office of Survey and Review includes an increase of $87,400 of which $8,400 represents Pay Reform Act costs on current positions and $79,000 represents the additional requirement for 1964 lapses nonrecurring in fiscal year 1965.

The Office of Survey and Review was established late in fiscal year 1964 to strengthen management at the Department level. The functions and responsibilities of the former Division of Inspection, including the investigative activity; the contract review and procurement policy functions formerly in the now abolished Division of Property Management; responsibility for financial policies and methods have all been concentrated in this Office. Additionally, the Office of Survey and Review has been made responsible for more dynamic Department leadership in the areas of automatic data processing and internal auditing. This office provides an instrument of top level review and analyses to the Secretariat thus affording more precise bases for decisionmaking and progressive development in financial and management processes. The Office is staffed with carefully selected professional personnel and is equipped to offer expert advisory assistance in the important management areas described.

The new office has been created mainly by transfers and mergers of functions heretofore assigned elsewhere in the Department. In this process, however, meticulous selectivity of personnel and representative grading of positions has required some adjustment. Funds for support of authorized positions are required to complete this new and important arm of management.

In relation to the benefits, current and potential, which will accrue to the Department, this salary investment is wise and prudent. The office will provide more incisive final review of proposed contract commitments in such sensitive areas as helium supply, saline water, and loan programs. It will provide a more precise and reliable clearinghouse for important issues raised in congressional reports; e.g., the Appropriations and Government Operations Committees and in General Accounting Office audits. By its analysis and review the office will also aid the Department in seeking out and correcting incipient weak spots in our operations and methods.

While the Office of Survey and Review does not embody an audit staff as such, it is empowered to mobilize and direct technical audit activity throughout the Department and for this purpose the staffing provides for professional personnel of acknowledged expertness in financial policy and practices and management fact finding. Through this office the Department can insure sustained followup through special audits and other reviews on programs for manpower conservation, economy of method and maximum productivity. The office provides competent, informed direction of the Department's efforts to adopt the advantages of computer technology and to relate such adaptation to manpower savings.

The Office of Survey and Review needs the funds requested so that it may move aggressively in these objectives so vitally essential in Department management. It is confidently expected that this activity will to a very real degree pay for itself through avoidance of some of the costly mistakes of the past, through discovery and correction of areas where the possibility of waste may exist, and by general improvement in management capability at the Department level.

In effecting the reorganization which established the Office of Survey and Review, 32 authorized positions were established by transfer from existing activities in the administrative management area. Funds available, however, are insufficient to fill all positions and a lapse of approximately 6 man-years will be necessary during the current year. The staff represented by this lapse is urgently needed and the increase in funds is requested for this purpose.

(c) *Office of Management Operations, $702,200*

The estimate provides for the salaries and expenses of 84 employees, and an increase of $43,800 over 1964. The increase consists of $15,800 for pay costs and $28,000 for strengthening of staff. The Office of Management Operations is a new unit established in August 1963 and comprises all staff responsibilities and operations of the Division of Administrative Services; all staff responsibilities and functions of the Division of Property Management, exclusive of contract review, related policies and contract compliance under the nondiscrimination policy of the Federal Government; and the administrative staff functions pertaining to the emergency preparedness for defense responsibilities delegated to the Department of the Interior. This resulted in the abolishment of the Division of Administrative Services, Division of Property Management, and Division of Security.

The Office of Management Operations formulates and develops policies and procedures and provides coordination for a program of administrative services for the Department, and administers centralized services for the Department on such matters as space, printing, duplicating, library, health, communications and storage and shipping of office supplies and forms. The Office also provides administrative services, such as fiscal, personnel, mail, file, messenger, and procurement for the Office of the Secretary, Office of the Solicitor, Office of Oil and Gas,

Oil Import Administration, Oil Import Appeals Board, Office of Minerals and Solid Fuels, Office of Saline Water, Office of Geography, Office of Minerals Exploration, and Office of Coal Research.

In addition, the Office has primary staff responsibility for all property management activities of the Department. These include development of policy standards and objectives, providing staff guidance and direction, review and appraisal of the procedures and activities of the bureaus of the Department relating to procurement, utilization and disposition of real and personal property, quarters and subsistence, records and forms management, and radio frequency assignment and use. Staff members of the Office of Management Services represent the Secretary and the Department before committees of the Congress, the Bureau of the Budget, General Services Administration, Treasury Department and other Government agencies and on interagency Committees in regard to property management, radio communication, records management, space management, and emergency preparedness matters.

Despite the better utilization of manpower and the savings resulting from the consolidation of functions, it is necessary to request an increase in funds for this office due to a condition that developed over a period of years in the former Division of Administrative Services. The considerable increase in program activity in the Department and particularly in the other departmental offices resulted in a gradual increase in the workload of that area without any increase in funds. Every effort was made to hold the line on personnel, but the situation has reached the critical stage. The records indicate that the number of offices and personnel serviced is approximately double that of a decade ago, yet the number of personnel in this area has decreased. Over the years, the rising costs of operations, including promotions, have been absorbed. The situation has worsened to the point where the work cannot be currently maintained even with an abnormal amount of overtime being performed.

The increase of $28,000 is requested to help alleviate this situation and permit this office to provide adequate and prompt service. The requested funds would provide for four additional positions, $6,000 to permit full employment in currently authorized positions, and $1,000 for other operating expenses. The additional positions consist of a GS–9 accountant, a GS–5 personnel clerk, a GS–4 clerk, and a GS–2 laborer.

One of these positions, the GS–5 personnel clerk is for the Branch of Personnel. During the past 10 years the volume of work and the responsibilities carried on by the Branch, or required of it, has increased tremendously. The number of personnel serviced has increased over 50 percent. Numerous other responsibilities in the field of personnel management and relations have been added. Yet the increase in personnel available for this work has been approximately 1 man-year. Additional help is urgently needed to meet the responsibilities that have been placed on this Branch.

In the fiscal section, the number of employees serviced has increased from approximately 600 to over 1,100. The funds accounted for has increased by approximately 750 percent. Other requirements have been added which increase the accounting load, such as additional deductions for payroll purposes, accrued cost accounting, Treasury reports 224 and 225, and control accounting and reporting on interagency transactions. Yet, there has been an increase of only 3 or 14 percent in the number of employees available for this work. One additional GS–9 accountant is requested for the purpose of assisting in the preparation of the many reports required, and in the more complicated phases of the accounting work.

The GS–4 clerk-typist is requested for the Office of the Director. At the present time there is only one secretarial employee available to handle the typing and clerical work for four administrative or professional employees, with the result that their work is not as productive and efficient as it should be.

The laborer is requested for moving furniture, handling shipments, et cetera.

(*d*) *Division of Budget, $179,200*

The estimate for the Division of Budget includes an increase of $5,100 which is for the increased pay costs. Provision is made here for the salaries and expenses of 14 employees. The Division has primary staff responsibility for the budget activities of the Department. It performs a liaison function with the Bureau of the Budget and the Appropriation Committees of the Congress on all appropriation matters for the Department. It also has general direction of the development, preparation, and execution of the Department's budget and participates in determinations relating to Department programs and evaluations of the programs in terms of budget requirements.

(e) *Division of Management Research, $189,600*

The estimate for 1965 is $189,600 which is an increase of $27,200 over 1964. This increase consists of $4,200 for increased pay costs, $23,000 for additional staffing and expenses for management activities.

This increase will finance the addition of two management analysts and related increases in personnel benefits and other expenses. The Division is responsible for providing leadership and staff assistance to programs for the improvement of management and organization throughout the Department. Specific assignments include: the conduct of organization and management surveys, incentive awards programs, committee management, work improvement programs, directives management including coordination of the departmental manual, Secretary's orders, proposed Executive orders, Federal Register documents, Code of Federal Regulations, and other written instructional materials; and a management consulting service to the bureaus and offices on the above subjects as well as other problems of organization and management of operations, efficient utilization of manpower, and application of new techniques and equipment in carrying out Interior's programs.

The requirements for new and expanding activities in the various resource programs of the Department should be matched by increased emphasis from the Office of the Administrative Assistant Secretary on more efficient and economical management of these programs. More effective management data is needed and newer management-science techniques involving systems analysis, quantification of work elements, operations research, and other developments in this field should be applied in the analysis and performance of these operations. To provide this added emphasis and the supporting staff skills and capability for analysis, an increase of $23,000 is requested. A GS–14 management analyst position will provide a senior position to plan and give departmentwide leadership to efforts for measuring productivity of administrative and program operations of the Department, relating manpower requirements to the workload and the end products and results of bureau programs. A GS–12 management analyst will provide additional staff support for the paperwork management program and for the development of training materials in the Department's work-improvement and work-simplification programs and assisting the bureaus in the implementation of these programs.

(f) *Division of Personnel Management, $356,900*

The estimate for this activity reflects an increase of $8,900 over the amount available for the current fiscal year. The increase is all for pay costs on current positions.

The Division provides departmental leadership and staff guidance in the development and maintenance of a comprehensive personnel management program throughout the Department; develops policies, standards, objectives, and programs designed to establish and maintain an adequate, qualified, and efficient working force; provides general direction of a comprehensive program of personnel administration including position classification, labor relations, wage administration, employment, training, employee relations, inspection, personnel standards, procedures and records, and safety and health; coordinates bureau personnel programs, and plans and stimulates studies of personnel management improvement, including executive development and training.

The Pay Reform Act of 1962 contains several important provisions which require implementation, establishment of new policy, procedures, and regulations and standards for which this office is responsible. There has also been increased emphasis in several other personnel activities such as, employee management relations and equal employment opportunites in the Government, without regard to sex, color, race, religion, or national origin. Also considerable work has been required as a result of the Public Works Acceleration Act. This new legislation and the increased emphasis which has been given to these facets of personnel management increases the requirement for personnel program review and evaluation.

(g) *Correspondence management, $31,000*

The estimate includes an increase of $600 for pay costs and provides for three employees and some expenses. This unit was established for the purpose of improving the handling of important correspondence in the Department and to avoid delays in replying. It provides a means for facilitating the handling of correspondence directed to the Secretary, and for review of correspondence and other documents prepared for the signature of the Secretary. The departmental correspondence control officer is a staff assistant to the Administrative Assistant

Secretary, and is responsible for compliance with deadlines on controlled correspondence at all levels.

GENERAL SERVICES

*Analysis by subactivities*

| Subactivity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−), 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| General services | $133,896 | $129,700 | $147,100 | +$17,400 | +$2,400 | +$15,000 |

[1] To provide for increased pay costs on payments to other agencies.

*General services, $147,100*

The estimate for this activity includes an increase of $17,400, of which $2,400 is for increased costs on payments to other agencies as a result of the pay increase and $15,000 is for replacement of equipment.

This activity covers general expenses of the Office of the Secretary where it is not practicable to distribute to the various activities under this appropriation. Included are printing and binding, telephone, library, and dispensary services, postage, travel of Members of Congress in connection with examination of field activities of the Department, and certain other general expenses.

The increase requested for replacement of equipment consists of approximately $12,000 required for the replacement of a bookkeeping machine, and $3,000 for replacement of other office equipment, primarily electric typewriters, calculators, and reproduction equipment. The bookkeeping machine to be replaced is over 10 years old and it is essential also that we have a machine with punchcard or tape attachment, so that the information recorded can be processed further to provide information required for cost, objective class, and other reports required for management, budget use, and the Treasury Department. Modern office equipment is essential for efficient operation. No specific provision is made elsewhere in the budget for the purchase and replacement of this equipment. The life of these machines is limited and the maintenance and repair can become quite expensive. It is essential that funds be provided for this purpose.

ITEMIZATION OF ESTIMATE

*Salaries and expenses, Office of the Secretary*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $3,397,544 | $3,895,025 | $4,227,000 | +$331,975 |
| Reimbursements for emergency preparedness functions | | −40,000 | −102,000 | −62,000 |
| Unobligated balance lapsing | 82,469 | | | |
| New obligational authority | 3,480,013 | 3,855,025 | 4,125,000 | +269,975 |
| New obligational authority: | | | | |
| Appropriation | 3,482,050 | 3,858,400 | 4,125,000 | +266,600 |
| Transferred to "Operating expenses, Public Building Service," General Services Administration | −2,037 | −3,375 | | +3,375 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 2,759,577 | 3,219,200 | 3,489,700 | +270,500 |
| 12 Personnel benefits | 201,315 | 242,600 | 260,900 | +18,300 |
| 21 Travel and transportation of persons | 160,538 | 192,900 | 207,900 | +15,000 |
| 22 Transportation of things | 5,264 | | | |
| 23 Rent, communications, and utilities | 58,201 | 53,825 | 53,925 | +100 |
| 24 Printing and reproduction | 44,655 | 48,000 | 48,900 | +900 |
| 25 Other services | 14,750 | 14,000 | 15,675 | +1,675 |
| Services of other agencies | 69,676 | 69,600 | 78,300 | +8,700 |
| 26 Supplies and materials | 36,490 | 32,100 | 32,900 | +800 |
| 31 Equipment | 46,994 | 22,800 | 38,800 | +16,000 |
| 41 Grants, subsidies, and contributions | 84 | | | |
| Total, obligations | 3,397,544 | 3,895,025 | 4,227,000 | +331,975 |

*Obligations by activities and objects, fiscal years 1964 and 1965*

| | Fiscal year | Personnel compensation | Personnel benefits | Travel and transportation of persons | Rent, communications, and utility services | Printing and reproduction | Other services | Supplies and materials | Equipment | Total other obligations | Total obligations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Departmental direction: | | | | | | | | | | | |
| (a) Office of the Secretary | 1964 | $285,500 | $20,200 | $35,000 | $4,000 | $5,000 | $6,000 | $3,000 | $2,000 | $75,200 | $360,700 |
| | 1965 | 290,700 | 20,600 | 35,000 | 4,000 | 5,000 | 6,000 | 3,000 | 2,000 | 75,600 | 366,300 |
| (b) Office of the Under Secretary | 1964 | 67,300 | 4,800 | 7,000 | 2,400 | 2,000 | 1,600 | 600 | 500 | 18,900 | 86,200 |
| | 1965 | 83,200 | 5,900 | 7,000 | 2,400 | 2,000 | 1,600 | 600 | 500 | 20,000 | 103,200 |
| (c) Division of Information | 1964 | 123,900 | 8,500 | 2,000 | 300 | 700 | 3,600 | 3,500 | 1,000 | 19,600 | 143,500 |
| | 1965 | 127,000 | 8,700 | 2,000 | 300 | 700 | 3,600 | 3,500 | 1,000 | 19,800 | 146,800 |
| Total, departmental direction | 1964 | 476,700 | 33,500 | 44,000 | 6,700 | 7,700 | 11,200 | 7,100 | 3,500 | 113,700 | 590,400 |
| | 1965 | 500,900 | 35,200 | 44,000 | 6,700 | 7,700 | 11,200 | 7,100 | 3,500 | 115,400 | 616,300 |
| 2. Program direction and coordination: | | | | | | | | | | | |
| (a) Water and power | 1964 | 239,200 | 17,200 | 17,000 | 2,500 | 3,000 | 1,300 | 1,300 | 1,500 | 43,800 | 283,000 |
| | 1965 | 256,300 | 18,400 | 17,600 | 2,500 | 3,000 | 1,300 | 1,300 | 1,500 | 45,600 | 301,900 |
| (b) Mineral resources | 1964 | 172,300 | 12,200 | 12,000 | 600 | 700 | 2,400 | 1,800 | 500 | 30,200 | 202,500 |
| | 1965 | 187,600 | 13,300 | 12,000 | 600 | 700 | 2,775 | 1,800 | 500 | 31,675 | 219,275 |
| (c) Public land management | 1964 | 199,800 | 13,400 | 15,000 | 800 | 500 | 1,700 | 900 | 500 | 32,800 | 232,600 |
| | 1965 | 204,100 | 13,400 | 15,000 | 800 | 500 | 1,700 | 900 | 500 | 32,800 | 236,900 |
| (d) Fish and wildlife | 1964 | 83,300 | 5,400 | 9,500 | 300 | 2,200 | 700 | 700 | 500 | 19,300 | 102,600 |
| | 1965 | 84,800 | 5,400 | 9,500 | 300 | 2,200 | 700 | 700 | 500 | 19,300 | 104,100 |
| (e) Resources program staff | 1964 | 440,800 | 29,500 | 32,000 | 7,125 | 4,000 | 12,400 | 4,000 | 4,000 | 93,025 | 533,825 |
| | 1965 | 451,600 | 30,300 | 32,000 | 7,125 | 4,000 | 12,400 | 4,000 | 4,000 | 93,825 | 545,425 |
| Total, program direction and coordination | 1964 | 1,135,400 | 77,700 | 85,500 | 11,325 | 10,400 | 18,500 | 8,700 | 7,000 | 219,125 | 1,354,525 |
| | 1965 | 1,184,400 | 80,800 | 86,100 | 11,325 | 10,400 | 18,875 | 8,700 | 7,000 | 223,200 | 1,407,600 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3. Administrative management services: | | | | | | | | | | | |
| (a) Administrative Assistant Secretary | 1964 | 56,000 | 4,100 | 5,500 | 200 | 400 | 700 | 400 | 400 | 11,700 | 67,700 |
| | 1965 | 56,600 | 4,100 | 5,500 | 200 | 400 | 700 | 400 | 400 | 11,700 | 68,300 |
| (b) Office of Survey and Review | 1964 | 279,700 | 20,000 | 25,000 | 500 | 1,000 | 500 | 2,500 | 10,200 | 59,700 | 339,400 |
| | 1965 | 361,300 | 25,800 | 25,000 | 500 | 1,000 | 500 | 2,500 | 10,200 | 65,500 | 426,800 |
| (c) Office of Management Operations | 1964 | 595,200 | 42,000 | 1,000 | 200 | 7,000 | 4,000 | 8,000 | 1,000 | 63,200 | 658,400 |
| | 1965 | 635,000 | 45,000 | 2,000 | 200 | 7,000 | 4,000 | 8,000 | 1,000 | 67,200 | 702,200 |
| (d) Division of Budget | 1964 | 156,500 | 11,000 | 4,000 | 100 | 1,500 | 300 | 500 | 200 | 17,600 | 174,100 |
| | 1965 | 161,300 | 11,300 | 4,000 | 100 | 1,500 | 300 | 500 | 200 | 17,900 | 179,200 |
| (e) Division of Management Research | 1964 | 146,900 | 10,200 | 3,600 | ---------- | 400 | 500 | 500 | 300 | 15,500 | 162,400 |
| | 1965 | 172,300 | 12,000 | 3,600 | ---------- | 400 | 500 | 500 | 300 | 17,300 | 189,600 |
| (f) Division of Personnel Management | 1964 | 311,600 | 21,700 | 5,000 | 300 | 3,500 | 4,000 | 1,700 | 200 | 36,400 | 348,000 |
| | 1965 | 320,500 | 21,700 | 5,000 | 300 | 3,500 | 4,000 | 1,700 | 200 | 36,400 | 356,900 |
| (g) Correspondence management control | 1964 | 27,300 | 2,000 | ---------- | ---------- | ---------- | ---------- | 1,100 | ---------- | 3,100 | 30,400 |
| | 1965 | 27,900 | 2,000 | ---------- | ---------- | ---------- | ---------- | 1,100 | ---------- | 3,100 | 31,000 |
| Total, administrative management services | 1964 | 1,573,200 | 111,000 | 44,100 | 1,300 | 13,800 | 10,000 | 14,700 | 12,300 | 207,200 | 1,780,400 |
| | 1965 | 1,734,900 | 121,900 | 45,100 | 1,300 | 13,800 | 10,000 | 14,700 | 12,300 | 219,100 | 1,954,000 |
| 4. General services | 1964 | ---------- | 18,000 | 16,200 | 34,000 | 16,000 | 43,900 | 1,600 | ---------- | 129,700 | 129,700 |
| | 1965 | ---------- | 18,000 | 16,200 | 24,000 | 16,000 | 46,300 | 1,600 | 15,000 | 147,100 | 147,100 |
| Grand total | 1964 | 3,185,300 | 240,200 | 189,800 | 53,325 | 47,900 | 83,600 | 32,100 | 22,800 | 669,725 | 3,855,025 |
| | 1965 | 3,420,200 | 255,900 | 191,400 | 53,325 | 47,900 | 86,375 | 32,100 | 37,800 | 704,800 | 4,125,000 |

HIGHLIGHT STATEMENT

Senator BIBLE. We have Mr. Beasley and Mr. Larson and Mr Rothrock to present the testimony in support of the budget.

We have your statement, Mr. Beasley, and it will be incorporated in full in the record, as given, and why do you not highlight it?

Mr. BEASLEY. I will do that, Mr. Chairman.

(The statement referred to follows:)

STATEMENT BY D. OTIS BEASLEY, ADMINISTRATIVE ASSISTANT SECRETARY

Mr. Chairman and members of the committee, the Office of the Secretary is submitting a request for the fiscal year 1965 of $4,125,000. This is an increase of $269,975 over the adjusted appropriation for 1964. Of the increase, $82,000 is required to cover additional pay costs under the Federal Employees Salary Act of 1962. The remainder of the increase, or $187,975, is for required general strengthening in certain areas.

The Secretary and supporting staffs provide general guidance, coordination, and administrative services to all the bureaus and offices of the Department. The Department's responsibilities have increased in complexity and scope in response to demands for more effective resource conservation and development.

The Department is pursuing technological advances in the centralization of data gathering, programing, and dissemination in order to meet these growing demands and at the same time conserve manpower. To further this end and to provide better administrative services, the staffs in six offices must be strengthened. The requested increases are needed to implement this program.

The offices which require additional staffing are the Office of the Under Secretary, the Offices for the Assistant Secretaries for Water and Power and for Mineral Resources, and the Office of Survey and Review, Office of Management Operations, and the Division of Management Research under the Administrative Assistant Secretary. A concise breakdown of the increases for each of these offices is provided in the budget request. The limited increases are considered very important and it is believed they will significantly contribute to an improvement in the overall management and efficiency of the Department.

One assistant is required in the Office of the Under Secretary. During the past several years the workload in the Under Secretary's Office has increased considerably, particularly in those areas for which the Under Secretary is directly responsible. The assistant would provide top staff assistance on continuing and specific assignments, and be available to represent the Under Secretary at meetings and conferences as required. The assistant will be grade GS–16.

The Assistant Secretary for Water and Power requires an increased appropriation for one GS–14 engineer. This engineer is needed for conducting engineering and economic studies relative to marketing activities which the Department may have in the development of water and power resources in areas, primarily outside the areas presently served by the four power marketing agencies. Because of changes in organization there will be no increase in the total number of positions here.

One GS–13 economist must be added to the staff of the Assistant Secretary for Mineral Resources. The economist will perform staff service with reference to the economic factors involved in existing or proposed mineral policies and programs of the Department. The staff member formerly performing these duties has been assigned numerous additional high-level staff duties in the nature of liaison with other departments, participation in committee groups, and coordination of increasing responsibilities of the Department in many fields; including energy; for example. This has severely limited his availability for staff economist functions.

The Office of Survey and Review was established late in fiscal year 1964 to strengthen management at the Department level. The Office assumed the responsibilities and functions of the former Division of Inspection and certain functions of the Division of Property Management. Additionally, the Office of Survey and Review has been made responsible for more dynamic departmental leadership in the areas of automatic data processing and internal auditing. The Office will provide more incisive final review of proposed contract commitments in such sensitive areas as helium supply, saline water, and loan programs. It will provide a more precise and reliable clearinghouse for important issues raised in congressional reports; e.g., the Appropriations and Government Operations Committees and in General Accounting Office audits. The Office is empowered to

mobilize and direct technical audit activity throughout the Department. It is confidently expected that this activity will, to a very real degree, pay for itself through avoidance of costly mistakes of the past and by general improvement in management capability at the Department level.

The increased appropriation in this Office is to cover 1964 lapses nonrecurring in 1965. The present funds available are insufficient to fill an urgently needed staff represented by a lapse of approximately 6 man-years.

The Office of Management Operations was established in August 1963 to consolidate all the functions of the Division of Administrative Services, the Division of Security, and the Division of Property Management, exclusive of contract review and contract compliance under the nondiscrimination policy of the Federal Government.

The Office of Management Operations formulates and develops policies and procedures and provides coordination for a program of administrative services for the Department and administers centralized services for the Department on such matters as space, printing, duplicating, library, health, communications, and storage and shipping of office supplies and forms. The Office also provides administrative services, such as fiscal, personnel, mail, file, messenger, and procurement for the Office of the Secretary and other offices of the Department.

Despite the better utilization of manpower and the savings resulting from the consolidation of functions, it is necessary to request an increase in funds for this Office due to a condition that developed over a period of years in the former Division of Administrative Services. The considerable increase in program activity in the Department has resulted in a gradual increase in workload in this Division without any increase in funds. The number of offices and personnel serviced in the past decade has approximately doubled while the number of personnel in this area has decreased. The situation is such that the work cannot be currently maintained even with an abnormal amount of overtime being performed.

The increase is required to help alleviate the situation by providing four additional positions. One GS–5 personnel clerk is needed to accomplish the increased volume of work undertaken in the Branch of Personnel. One additional GS–9 accountant is needed in the Fiscal Section to assist in the preparation of the many reports required, and in the more complicated phases of the accounting work.

One GS–4 clerk-typist is required in the Office of the Director. Presently one secretarial employee handles the typing and clerical work for four professional and administrative personnel, with the result that their work is not as productive and efficient as it should be. The final position requested is a GS–2 laborer required for moving furniture and handling shipments.

The Division of Management Research requires an increase in appropriations to provide the addition of two management analysts. A GS–14 management analyst position will provide a senior position to plan and give Department-wide leadership for studies measuring production in relation to manpower requirements and workload. A GS–12 management analyst will provide additional staff support for paperwork management and for development of training materials in the Department's work-improvement and work-simplification programs.

Mr. BEASLEY. This item, "Office of the Secretary," includes the Secretary, the Assistant Secretaries, and the supporting staffs for the general direction, supervision, coordination, and general administrative services of the Department.

### BUDGET INCREASES

The estimate for 1965 is $4,125,000, an increase of $269,975 over the current appropriation. Of the increase, $82,000 is for increased pay cost under the Federal Employees Act of 1962, and $187,975 is for general strengthening in certain areas of the Office of the Secretary.

### PERSONNEL

For the purposes of strengthening the Office of the Secretary, we are requesting a $107,200 increase, to make up a portion of the funds needed to fill currently established positions. The remainder of the increase, $80,775, is for seven new positions and for personnel benefits and other expenses.

The new positions are identified as follows: One is for the Assistant Secretary for Mineral Resources, an economist. There are also four positions asked for the Office of Management Operations, a total of $19,000; two positions for the Office of Management Research, one of which would be concerned with studying productivity with a view to increasing manpower utilization. A second position requested for that Office is to make studies of paperwork, and to try to find ways and means of improving the paperwork flow in the Department, curtailing it wherever possible.

EQUIPMENT

This explains generally the increases, except for $15,000, which is requested for equipment, most of which would be used to replace a bookkeeping machine, which is now 12 years old and is not capable of performing the type of work that we need today.

POSITION FOR GS–14 ENGINEER

Senator BIBLE. My attention is directed to one position, and I am not sure whether it is an unfilled position or a new position. That is the position in Secretary Holum's office, calling for a GS–14 engineer. Now is that a new position, or is that an old one?

Mr. BEASLEY. It is an old position, which we do not have funds to finance at the present time because of increased cost and within-grade promotions and upgrading.

This position, as is indicated in the justification, is to enable this Office to work with the Corps of Engineers in river basins not now covered by one of the power marketing agencies, and is for the purpose of coordinating the power studies of the Corps of Engineers in these basins, such as the Ohio and the New England area.

Senator BIBLE. This is an old position that you did not have funded?

Mr. BEASLEY. That is correct.

Senator BIBLE. This is within that $100,000 you described of the $187,000?

Mr. BEASLEY. That is correct.

Senator BIBLE. How many positions were not funded, in that?

NEW POSITIONS REQUESTED

Mr. BEASLEY. About nine positions.

Senator BIBLE. In other words, you are asking for funds for nine positions for which you did not have a sufficient appropriation. You are asking for seven new positions.

Mr. BEASLEY. That is correct.

Senator BIBLE. And in your justification, is there detail as to what each of these positions will do?

Mr. BEASLEY. Yes, sir.

Senator BIBLE. Justifying all of the nine, as well as the seven new ones?

Mr. BEASLEY. Yes.

### River Investigations in Ohio Basin

Senator Bible. Now, has your work on the comprehensive river investigations in the Ohio Basin been concluded?

Mr. Beasley. No, they have not been concluded. This is a study that is expected to be completed in 1966. The study is underway now, and is on schedule, and we contemplate it will be finished by 1966.

Senator Bible. It has, then, about 2 years to run?

Mr. Beasley. That is correct.

### Accelerated Public Works Program

Senator Bible. What do you estimate has been the cost to the Department for its participation in the Accelerated Public Works program, broken down to show the amount transferred to the Department from the Area Redevelopment Administration, and the amount for which funds have not been specifically appropriated?

Mr. Beasley. We had a total of $63 million transferred under the Accelerated Public Works program. In addition, we were provided $485,000 for administrative expenses. But in addition to that, we estimate that it cost us $718,000 in administrative expenses to administer this program over and above that allocated, making a total of about $1,200,000 administrative cost for the $63 million program, a little under 2 percent cost for administrative expenses.

Senator Bible. That is very fine, Mr. Beasley.

It is always good to see you, and I have no further questions. You made a very fine statement as to justification.

## Office of the Solicitor

**STATEMENTS OF FRANK J. BARRY, SOLICITOR; EDWARD WEINBERG, DEPUTY SOLICITOR; EDITH A. MAHON, ADMINISTRATIVE OFFICER; DALE L. ROTHROCK, FINANCE OFFICER; AND WALLACE L. DUNCAN, SPECIAL ASSISTANT**

### 1965 Budget Request

Senator Bible. The next office that we will consider is the Office of the Solicitor. Mr. Barry, Mr. Weinberg, and Mr. Rothrock are present.

Mr. Barry. Good morning, Senator.

I also have with me Mr. Duncan and Miss Mahon.

Senator Bible. Very well. We are very happy to have them.

Your office shows a request for $4,173,000 for fiscal 1965. This is an increase of $173,000 over the amount appropriated in the fiscal year 1964.

The justification for this request will be printed in the record.

(The justification statement referred to follows:)

SALARIES AND EXPENSES

| | |
|---|---|
| Appropriation, 1963 | $3,852,650 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration | −1,155 |
| Total available, 1963 | 3,851,495 |
| Appropriation, 1964 | 4,000,000 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration | −1,000 |
| Total available, 1964 | 3,999,000 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | |
|---|---|
| To provide for increased pay costs for fiscal year 1964 positions | 87,000 |
| Increase to permit filling a limited portion of vacancies in established positions | 37,000 |
| Increase for within-grade promotions | 50,000 |
| Net increase, 1965 | 174,000 |
| Budget estimate, 1965 | 4,173,000 |

*Analysis by activities*

| Activity | Amount available, 1963 | Fiscal year 1964 | | |
|---|---|---|---|---|
| | | Total appropriation | Transfers [1] | Amount available |
| Legal services | $3,700,543 | $4,000,000 | $1,000 | $3,999,000 |
| Unolbigated balance lapsing | 150,952 | | | |
| Total | 3,851,495 | 4,000,000 | 1,000 | 3,999,000 |

[1] Represents transfers to General Services Administration unless otherwise footnoted.

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Legal services | $3,700,543 | $3,999,000 | $4,173,000 | +$174,000 | +$87,000 | +$87,000 |
| Unobligated balance lapsing | 150,952 | | | | | |
| Total | 3,851,495 | 3,999,000 | 4,173,000 | +174,000 | +87,000 | +87,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

JUSTIFICATION

The 1965 estimate for the legal services of the Department provides for a total increase of $174,000 over the appropriation for the 1964 fiscal year. This increase is made up of:

| | |
|---|---|
| For salary increases provided in the 1962 amendments to the Classification Act, effective Jan. 5, 1964 | $81,000 |
| To permit filling a limited portion of vacancies in established positions | 37,000 |
| To apply to within-grade advancements | 50,000 |
| To apply to the increase in personnel benefits resulting from increased pay rates | 6,000 |

Owing to the salary increases payable under the Classification Act Amendments of 1962, continuance of the increase first made in fiscal year 1963 of $12,000 in allowable reimbursements to the Office of the Solicitor from other accounts avail-

able to the Department is requested in this estimate also so that it would continue at a total of $142,000.

It is the duty of the Solicitor to provide legal services for the entire Department of the Interior, its bureaus and offices, its many field establishments, and the Secretariat. Year by year the scope and type of transactions handled by the Department has increased. This has brought with it a steadily increasing demand for legal services, but the legal staff has decreased rather than increased since 1952, although it is estimated that in the same period, the number of separate legal matters handled by the Office has almost doubled—from 1955 to 1963 alone it increased by 70 percent.

These increases in departmental work with resultant increases in demand for legal services have extended to all areas of the Department's work. For example:

(1) The Office of Saline Water is engaged in an accelerated research and development program. This is effected through negotiated research and development contracts. At the close of the fiscal year 1963 there were 121 research and development contracts in effect. It is estimated that by the close of fiscal 1964 there will be a total of 142 and by the close of fiscal 1965 there will be approximately 180 such contracts in effect. Each such contract requires much legal assistance, as no two negotiated contracts are identical and each contract at some stage is expected to require legal advice. One problem is the rights of disclosure of information and results of research. Another problem requiring much legal advice is in connection with patents.

(2) New reclamation projects and other similar legislative authorizations issue each year in steadily increasing amounts (for fiscal 1962 the expenditure on the development of land and water resources was $332 million; for fiscal 1963 it is $344 million; for fiscal 1964 it will be $335 million, and for fiscal 1965 it will be $323.6 million) with related legal demands. The Central Valley project is a good example. It poses problems such as the water diverters on the Sacramento River and Federal-State relationships in connection with the construction of the San Luis Dam. These require substantial legal work.

(3) Enrollment appeals by Indians in connection with judgments recovered against the United States are rapidly increasing coincident with an increase in the number of judgments and related distribution statutes. Thus the Omaha Indian statute now on the books has produced 65 appeals, with consequent legal work, and other similar statutes are pending.

(4) There are a number of legislative and treaty proposals now pending which if enacted would substantially increase the legal work of the Department—in some cases by a large amount. Many of these proposals require extensive legal work during the legislative or authorizing stage, even if they should not ripen into actual projects. A few of the more significant of these proposed laws are:

(*a*) The Pacific Southwest water plan, including the central Arizona project.

(*b*) The proposed land and water conservation fund involving grant-in-aid programs to the States for the planning and development of recreation areas.

(*c*) The Pacific-Northwest-Southwest intertie.

(*d*) The Passamaquoddy project.

(*e*) The Columbia River power disposal problems resulting from the Canadian treaty.

(5) The continuing effort to reduce the backlog of pending land and mineral appeals.

(6) Public Law 88-29 authorizes planning and research into our recreational resources—with related statutory interpretation, review of regulations, etc.

(7) The recent creation of the Bureau of Outdoor Recreation and its continuing expansion continue to pose new and broadened legal problems.

(8) The recent establishments of national seashore areas such as Point Reyes, Cape Cod, and Padre Island.

(9) Since 1959 alone, the number of cases involving tort litigation has increased by 50 percent and the number of tort claims has grown by 25 percent. This upward trend appears to be continuing.

(10) Legislation for the rehabilitation of Guam.

(11) The patent work of the office is increasing sharply as a result of major increases in the number of research contracts let by the Office of Coal Research and the Office of Saline Water, and in the inhouse research work of the Bureau of Mines, resulting in more patents, more inventor reports, etc. Not only have the appropriations of the Office of Coal Research and of Saline Water been increased by the Congress, but Congress has required the Government to retain

patent rights in connection with Government-financed research under these programs. The result has been further major demands for legal services.

(12) The controversies over the Outer Continental Shelf areas on the Pacific and gulf coasts are producing both an expanding number of negotiations and disputes with the States, and increasing possibilities of litigation.

(13) The leasing for oil and gas of considerable Federal lands on the Outer Continental Shelf off the coasts of California, Alaska, Washington, and Oregon will generate a demand for additional legal services.

(14) The recent Supreme Court decision in *Arizona* v. *California* will not only itself project new legal problems, but has opened the way to the resolution of many problems and projects whose disposition has been held up awaiting that decision.

(15) Increased construction, and procurement contracting by organizations such as Bonneville Power Administration, Southwestern Power Administration, et al., for which the Office of the Solicitor furnishes legal services.

(16) The workload of the Legislative Division of this Office is intensified by the fact that the reports on legislation pending before Congress have tended to become more complex and time consuming, and as the Department ventures into new areas such as water resources research and planning and general recreation, or attempts to solve old problems such as Indian heirship and coal mine safety.

(17) The problems created both within the United States and with Mexico, by the lower Colorado River salinity problem—including acquisitions of rights-of-way for construction and international legal problems.

(18) The continuing problems of title to land along the lower Colorado River, including questions of trespass, of accretion and avulsion, and of water rights.

(19) There is a substantial increase proposed in the work of the Bureau of Mines dealing with helium. This will increase legal work in such areas as contracting authority, etc.

The instances just cited may seem numerous. Actually, they are but a highlight sampling of the many areas of new and increased departmental activity requiring legal services. Furthermore, these are primarily events which signalize the regular and continued annual growth of demands for legal services from the Office of the Solicitor.

In addition, there are many individual events of a sudden or unexpected character which each year pose heavy demands for legal service. Representative of such events are the recent mine disasters, the recent group of slant drilling cases under the Connally Hot Oil Act, natural disasters such as the windstorms in the Northwest with their related problems created by widespread damage to timber, much of which had already been sold and the recent congressional proposals for a thorough review of the Public Land laws. The last mentioned items will necessarily place substantial demands on this Office even though an independent commission makes the basic inquiries. And were a Civilian Youth Conservation Corps to be set up, the demands would be manifold.

The varied instances cited above of the growth in demand for legal services lend color and meaning to statistics which reveal that in 1955, with a staff of 192 attorneys, the Solicitor's Office handled less than 99,000 distinct legal matters, while in fiscal 1963, with a staff of 196 attorneys, the Office handled more than 159,000 matters for a major Cabinet agency.

The Interior Department is custodian of the public lands and natural resources of the United States, many of which, such as oil leases, may involve transactions in the billions of dollars as do the broad reclamation and construction projects of the Department. And this does not include its guardianship of the Indians and many other important public trusts.

In further explanation of the request to fill the 18 established positions which are currently vacant due to lack of funds, 418 positions were provided in the 1964 budget. At the time of the 1964 budget hearings there were 36 previously exis'ing vacancies listed and 5 were established in 1963 making a total of 41 vacancies. Since the 1964 hearings 23 positions have been filled, leaving 18 unfilled vacancies.

These vacancies resulted from the fact that the Office was threatened with the necessity of meeting a portion of the pay increases and was required to absorb costs of in-grade promotions and of terminal leave payments. The costs thus absorbed considerably exceeded the cost of the 18 positions requested. As a consequence, funds were not available to fill these vacancies, particularly in the absence of such knowledge as what funds the Congress would provide for pay act increases, etc., which information was not disclosed until late in the 1963 fiscal year. It should also be pointed out that the funds requested to fill these vacancies assume they will be filled during only a portion of the fiscal year, as the full annual cost would require a total of $112,728.

The full requirements of within-grade advancements, likewise, are not reflected in the funds requested for the purpose. Obligations of this nature are expected to reach a total of $94,898 in 1965 and thus will overrun the requested $50,000 by the large amount of $44,898. A still further absorption necessity must be faced in the form of terminal leave payments to departing employees. For possible retirements alone, the leave payments are likely to be in excess of $52,000. Together, the obligations will cut into 1965 funds by the substantial amount of $96,898 and to this extent reduce the level of personnel that can be maintained for the legal services of the Department.

The many increasing burdens cited above suggest that the Office of the Solicitor has been more than modest in not seeking additional positions and in limiting its request to additional funding for existing vacancies. The workload of the Office has been carefully examined and, as itemized above, the substantial increases in legal work require far more than the filling of 18 vacancies. The request for funds to at least fill the vacancies is therefore an absolutely essential minimum.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $3,828,140 | $4,141,000 | $4,315,000 | +174,000 |
| Advances and reimbursements from other accounts | −127,597 | −142,000 | −142,000 | |
| Unobligated balance lapsing | 150,952 | | | |
| New obligational authority | 3,851,495 | 3,999,000 | 4,173,000 | +174,000 |
| New obligational authority: | | | | |
| Appropriation | 3,852,650 | 4,000,000 | 4,173,000 | +173,000 |
| Transferred to "Operating expenses, Public Buildings Service," General Services Administration | −1,155 | −1,000 | | +1,000 |
| Object classification: | | | | |
| 11 Personnel compensation | 3,222,679 | 3,545,000 | 3,707,000 | +162,000 |
| 12 Personnel benefits | 241,624 | 262,000 | 274,000 | +12,000 |
| 21 Travel and transportation of persons | 108,217 | 104,000 | 104,000 | |
| 22 Transportation of things | 2,405 | 5,000 | 5,000 | |
| 23 Rent, communications, and utilities | 66,638 | 55,000 | 55,000 | |
| 24 Printing and reproduction | 35,814 | 27,000 | 27,000 | |
| 25 Other services | 5,448 | 8,000 | 8,000 | |
| Services of other agencies | 68,086 | 74,000 | 74,000 | |
| 26 Supplies and materials | 15,383 | 21,000 | 21,000 | |
| 31 Equipment | 61,746 | 40,000 | 40,000 | |
| 42 Insurance claims and indemnities | 100 | | | |
| Total obligations | 3,828,140 | 4,141,000 | 4,315,000 | +174,000 |

INCREASED PAY COSTS

Senator BIBLE. In addition to funds necessary to meet the increased pay costs of fiscal year 1964 positions, you ask $37,000 to fill 18 vacancies which are now authorized.

Please comment on this need, as well as upon your request for $50,000 to meet the costs of within-grade promotions.

Mr. BARRY. Well, first, with respect to the $37,000: These are positions which have been vacated by virtue of attrition, and the funds have not been available in the budget to fill these positions, because of within-grade advancements, and other absorbed costs.

VACANCIES

These 18 positions I can supply the committee with a list of, but unfortunately, when I reviewed the files of all those who come up this morning, not one of us had a copy of it.

Senator BIBLE. It may be supplied.

(The information referred to follows:)

*Vacancies (8 attorneys, 10 clericals), $99,680*

| | October 1962 rate | January 1964 rate |
|---|---|---|
| Attorneys: | | |
| GS-13 Hearing examiner, Gallup | $11,150 | $11,725 |
| GS-13 Hearing examiner, Gallup | 11,150 | 11,725 |
| GS-11 Sacramento | 8,045 | 8,410 |
| GS-11 Elberton | 8,045 | 8,410 |
| GS-9 Denver | 6,675 | 7,030 |
| GS-9 Sacramento | 6,675 | 7,030 |
| GS-7 Denver | 5,540 | 5,795 |
| GS-11 Land Appeals, Washington | 8,045 | 8,410 |
| Subtotal (8) | 65,325 | 68,535 |
| Clerical: | | |
| GS-5 Aberdeen | 4,565 | 4,690 |
| GS-5 Billings | 4,565 | 4,690 |
| GS-5 Portland | 4,565 | 4,690 |
| GS-5 Portland | 4,565 | 4,690 |
| GS-5 Los Angeles | 4,565 | 4,690 |
| GS-4 Land Appeals | 4,110 | 4,215 |
| GS-4 Indian Division | 4,110 | 4,215 |
| GS-4 Territories, W. & Pks | 4,110 | 4,215 |
| GS-4 Minerals Division | 4,110 | 4,215 |
| GS-3 Denver | 3,820 | 3,880 |
| Subtotal (10) | 43,085 | 44,460 |
| Grand total (18) | 108,410 | 112,995 |
| Budget Bureau allowance | | 37,000 |
| Lapse | | 75,995 |

PERSONNEL

Mr. BARRY. These positions include lawyers and clerical positions, which, as I say, have been vacant. We now have—I think the figure at least a week ago was 386—employees in the Office of the Solicitor.

We do all of the legal work for the Department, including the work that is done in the field, in the various regional and field offices, serving all of the bureaus and agencies in the Department, and this budget for which we are making our request includes the compensation, personal services, and costs and expenses in connection with the legal work in the Department.

The justification, first of all, for filling these vacancies is that the burden of work, I can assure the committee, is so great that everyone has got some sort of a backlog—every office in the Department, so far as I know. Perhaps there may be an exception someplace, but I have not found it.

Senator BIBLE. How many lawyers do you have, again?

Mr. BARRY. The total number of employees we have in the office is 386.

Now, how many lawyers are there, Miss Mahon?

Miss MAHON. 201.

Senator BIBLE. 386, and of that number 201 are lawyers.

Now, can you supply for the record—or you can testify right now or have one of your staff furnish the information—their grades and their length of service with the Federal Government?

Mr. BARRY. I do not know if we have that information right now.

Senator BIBLE. That may be supplied for the record.

(The information referred to follows:)

*Attorney personnel (as of Mar. 2, 1964)*

| | Washington | Field | Total |
|---|---|---|---|
| Ungraded | 1 | | 1 |
| GS-17 | 2 | | 2 |
| GS-16 | 5 | | 5 |
| GS-15 | 17 | 8 | 25 |
| GS-14 | 17 | 29 | 46 |
| GS-13 | 13 | 42 | 55 |
| GS-12 | 9 | 20 | 29 |
| GS-11 | 7 | 20 | 27 |
| GS-9 | 2 | 5 | 7 |
| GS-7 | 3 | 1 | 4 |
| Total | 76 | 125 | 201 |

*Office of the Solicitor*

| | Number of attorneys | Length of Federal service [1] | |
|---|---|---|---|
| | | Years | Months |
| DEPARTMENTAL | | | |
| Ungraded (average length of service (1 attorney) 3 years, 1 month) | 1 | 3 | 1 |
| GS-17 (average length of service (2 attorneys) 12 years, 1 month) | 1 | 21 | 1 |
| | 1 | 3 | 1 |
| GS-16 (average length of service (5 attorneys) 12.8 years, 5.2 months) | 1 | 27 | 10 |
| | 1 | 3 | 1 |
| | 1 | 21 | 9 |
| | 1 | 8 | 6 |
| | 1 | 5 | |
| GS-15 (average length of service (17 attorneys) 16.6 years, 6.5 months) | 1 | 25 | 9 |
| | 1 | 21 | 3 |
| | 1 | 18 | 11 |
| | 1 | 30 | 9 |
| | 1 | 9 | 9 |
| | 1 | 13 | 5 |
| | 1 | 26 | 1 |
| | 1 | 31 | 7 |
| | 1 | 14 | |
| | 1 | 18 | 11 |
| | 1 | 7 | 7 |
| | 1 | 13 | 10 |
| | 1 | 16 | 9 |
| | 1 | 6 | 6 |
| | 1 | 13 | 2 |
| | 1 | 5 | 4 |
| | 1 | 18 | 7 |
| GS-14 (average length of service (17 attorneys) 14.8 years, 5.2 months) | 1 | 16 | 5 |
| | 1 | 34 | |
| | 1 | 13 | 3 |
| | 1 | 21 | 4 |
| | 1 | 4 | 1 |
| | 1 | 22 | 6 |
| | 1 | 5 | 2 |
| | 1 | 2 | 8 |
| | 1 | 5 | 4 |
| | 1 | 18 | |
| | 1 | 28 | 7 |
| | 1 | 28 | 8 |
| | 1 | 24 | 2 |
| | 1 | 16 | 11 |
| | 1 | 3 | 6 |
| | 1 | 6 | 11 |
| | 1 | 7 | 9 |
| GS-13 (average length of service (13 attorneys) 16.5 years, 6.3 months) | 1 | 5 | 2 |
| | 1 | 12 | |
| | 1 | 20 | 9 |
| | 1 | 18 | 11 |
| | 1 | 13 | 10 |
| | 1 | 14 | 11 |
| | 1 | 33 | 7 |
| | 1 | 21 | 7 |
| | 1 | 6 | 7 |
| | 1 | 6 | 6 |
| | 1 | 18 | 4 |
| | 1 | 46 | 1 |
| | 1 | 3 | 8 |

See footnotes at end of table, p. 1093.

*Office of the solicitor*—Continued

| | Number of attorneys | Length of Federal service [1] | |
|---|---|---|---|
| | | Years | Months |
| DEPARTMENTAL—continued | | | |
| | 1 | | 5 |
| | 1 | 12 | 7 |
| | 1 | 3 | 7 |
| GS–12 (average length of service (9 attorneys) 4.1 years, 4.5 months) | 1 | 2 | |
| | 1 | | 9 |
| | 1 | 10 | 5 |
| | 1 | 3 | 3 |
| | 1 | | 5 |
| | 1 | 7 | |
| | 1 | 5 | 2 |
| | 1 | 1 | 9 |
| | 1 | 3 | 7 |
| GS–11 (average length of service (7 attorneys) 2.5 years, 4.2 months) | 1 | 2 | |
| | 1 | 2 | 5 |
| | 1 | 2 | 7 |
| | 1 | 3 | |
| GS–9 (average length of service (2 attorneys) 4.5 years, 6.5 months) | 1 | 8 | 2 |
| | 1 | 1 | 11 |
| GS–7 (average length of service (3 attorneys) 1 year, 5.3 months) | 1 | | 4 |
| | 1 | 1 | 3 |
| | 1 | 2 | 9 |
| FIELD | | | |
| | 1 | 22 | |
| | 1 | 22 | 5 |
| | 1 | 14 | 2 |
| GS–15 (average length of service (8 attorneys) 19.4 years, 3.1 months) | 1 | 27 | 1 |
| | 1 | 30 | 1 |
| | 1 | 2 | |
| | 1 | 13 | 8 |
| | 1 | 26 | 8 |
| | 1 | 15 | 5 |
| | 1 | 14 | |
| | 1 | 21 | 5 |
| | 1 | 27 | 4 |
| | 1 | 42 | 1 |
| | 1 | 19 | 11 |
| | 1 | 21 | 1 |
| | 1 | 18 | 10 |
| | 1 | 23 | 5 |
| | 1 | 9 | 4 |
| | 1 | 13 | 7 |
| | 1 | 14 | 7 |
| | 1 | 13 | 1 |
| | 1 | 4 | 5 |
| GS–14 (average length of service (29 attorneys) 18.5 years, 5.3 months) | 1 | 23 | 2 |
| | 1 | 19 | 5 |
| | 1 | 22 | 2 |
| | 1 | 27 | 5 |
| | 1 | 27 | 2 |
| | 1 | 18 | 8 |
| | 1 | 21 | 6 |
| | 1 | 21 | 1 |
| | 1 | 17 | 10 |
| | 1 | 9 | 9 |
| | 1 | 17 | 11 |
| | 1 | 12 | 2 |
| | 1 | 24 | 9 |
| | 1 | 15 | 10 |
| | 1 | 12 | 8 |
| | 1 | 8 | 2 |
| | 1 | 24 | 10 |
| | 1 | 10 | 6 |
| | 1 | 30 | 2 |
| | 1 | 18 | 7 |
| | 1 | 1 | 8 |
| | 1 | 5 | 7 |
| | 1 | 27 | 9 |
| | 1 | 16 | 11 |
| GS–13 (average length of service (42 attorneys) 12.8 years, 5.5 months) | 1 | 21 | 6 |
| | 1 | 9 | 6 |
| | 1 | 22 | |
| | 1 | 15 | 5 |
| | 1 | 9 | 7 |
| | 1 | 10 | 10 |
| | 1 | 13 | 3 |
| | 1 | 9 | 7 |
| | 1 | 19 | |
| | 1 | 28 | 6 |

See footnotes at end of table, p. 1093.

*Office of the solicitor*—Continued

| | Number of attorneys | Length of Federal service [1] | |
|---|---|---|---|
| | | Years | Months |
| FIELD—continued | | | |
| | 1 | 12 | 10 |
| | 1 | 6 | 3 |
| | 1 | 20 | ---------- |
| | 1 | 12 | 2 |
| | 1 | 2 | ---------- |
| | 1 | 3 | 5 |
| | 1 | 32 | 6 |
| | 1 | 24 | 5 |
| | 1 | 17 | 6 |
| | 1 | 12 | 10 |
| GS–13 (average length of service (42 attorneys) 12.8 years, 5.5 months)—Continued. | 1 | 14 | 6 |
| | 1 | 2 | 4 |
| | 1 | 8 | ---------- |
| | 1 | 7 | 7 |
| | 1 | 26 | 3 |
| | 1 | 3 | 5 |
| | 1 | 23 | 4 |
| | 1 | 13 | 10 |
| | 1 | 6 | 8 |
| | 1 | 2 | 5 |
| | 1 | ---------- | 10 |
| | 1 | 2 | 8 |
| | 1 | 1 | 3 |
| | 1 | 7 | 5 |
| | 1 | 25 | 9 |
| | 1 | 5 | 4 |
| | 1 | 7 | 6 |
| | 1 | 17 | 6 |
| | 1 | 10 | 10 |
| | 1 | 3 | 7 |
| | 1 | 5 | 1 |
| | 1 | 30 | ---------- |
| GS–12 (average length of service (20 attorneys) 7.6 years, 5.3 months) | 1 | 9 | 10 |
| | 1 | 2 | 6 |
| | 1 | 1 | 11 |
| | 1 | 1 | 2 |
| | 1 | 7 | 1 |
| | 1 | 4 | ---------- |
| | 1 | 1 | 9 |
| | 1 | 1 | ---------- |
| | 1 | 7 | 8 |
| | 1 | 2 | 6 |
| | 1 | 9 | 6 |
| | 1 | 11 | 1 |
| | 1 | ---------- | 9 |
| | 1 | 4 | 4 |
| | 1 | 4 | 6 |
| | 1 | 12 | 3 |
| | 1 | 7 | 2 |
| | 1 | 3 | 11 |
| | 1 | 1 | 5 |
| | 1 | 26 | 8 |
| GS–11 (average length of service (20 attorneys) 5.4 years, 4.5 months) | 1 | 2 | 2 |
| | 1 | 7 | 5 |
| | 1 | 3 | 5 |
| | 1 | 2 | ---------- |
| | 1 | 9 | 1 |
| | 1 | 2 | 4 |
| | 1 | 1 | 2 |
| | 1 | 2 | 6 |
| | 1 | 6 | 8 |
| | 1 | 6 | 2 |
| | 1 | ---------- | 11 |
| | 1 | 1 | 11 |
| | 1 | 3 | 11 |
| GS–9 (average length of service (5 attorneys) 2.2 years, 7 months) | 1 | 4 | ---------- |
| | 1 | 1 | 7 |
| | 1 | 2 | 6 |
| GS–7 (average length of service (1 attorney) 7 months) | 1 | ---------- | 7 |

[1] As of Mar. 1, 1964.

RECRUITING ATTORNEYS

Senator BIBLE. My purpose is this. And as a lawyer, I am very much interested in seeing that we get the highest possible legal talent in each of our departments. I know that sometimes the grades are insufficient to attract topnotch lawyers, and more particularly to hold them once they have come into service.

So I would be very happy to have you supply for the record this information, if you will, if you are clear on what I am asking.

Mr. BARRY. I might say this, with respect to the problem of attracting lawyers: We can get young lawyers, but we have been in competition with other departments, and we have recently introduced an honors program. Most of our hirings are now under that honors program.

In other words, instead of hiring at grade 7, we are now hiring at grade 9, for the most part.

Senator BIBLE. What is the grade 9, beginning?

Mr. DUNCAN. $7,030.

Mr. BARRY. The difficulty is, of course, that many of these regional and field offices—while they are not autonomous since they are still under the Solicitor's office—must give day to day advice on very important programs of the United States, and we frequently have to staff those offices with lawyers of considerable experience.

It is a good deal more difficult to get lawyers at grade 9 or 7 for such jobs, and we run into a problem. It is important to get topnotch legal assistance in those offices, and finding the experience, without having to disrupt their family roots by moving them from one locality to another, is quite difficult.

ATTORNEYS IN WASHINGTON, D.C., AREA

Senator BIBLE. How many of the 201 lawyers are assigned in Washington, and how many are in the field?

This may be in your prepared statement.

Mr. BARRY. Eighty-one positions in Washington. This does not represent the number of lawyers, however. That is on a basis of 220 positions, which are not filled. There are only 201 lawyers that we have actually working for us.

Senator BIBLE. I see.

Mr. BARRY. But that is about the proportion.

Senator BIBLE. Eighty-one are in Washington, and the balance are in the field?

Mr. BARRY. Correct.

TENURE OF SERVICE

Senator BIBLE. Also supply for the record the length of service of these various lawyers. I do not know whether I made that clear or not.

The thing I am driving at is to make sure the young man you take in on the grade 9 stays with you. My experience would be that he probably stays for awhile and then leaves.

Mr. BARRY. This is not true as much as I expected, Senator, because there is a certain attraction in Federal service.

Senator BIBLE. There are certain benefits you do not get from private practice.

Mr. BARRY. Besides economic benefits, you have the best client in the world, and most like to work for the Government.

Senator BIBLE. I imagine the work is pretty steady. You would be in trouble if it were not.

But you supply that for the record, Mr. Barry.

I have already inserted your justification. You can highlight that in any additional way that you like.

PARTIALLY FILLING AUTHORIZED VACANCIES

Mr. BARRY. Well, I would only like to point out that this sum of $37,000 is not going to take care of our 18——

Senator BIBLE. That misleads me. You asked for $37,000 to fill 18 vacancies which are now authorized. I do not see how you can fill them with $37,000.

Mr. BARRY. These are the existing vacancies, and this is the only sum that is available in our presentation. It is to fill those vacancies.

Senator BIBLE. That is rather misleading. What you are saying is that you are going to fill as many of 18 vacancies as you can with $37,000?

Mr. BARRY. That is correct.

Senator BIBLE. It occurs to me this may be only four positions.

Mr. BARRY. This is what we think we will be limited to, unless we include some clerical help.

Let me say it is almost impossible to predict which of the 18 we will fill if we get this appropriation, because workload pressures vary and change from time to time in the Department.

The budget which is finally approved and adopted for the Department of the Interior will determine in large part where the legal work is going to fall heaviest, and also various emergencies come up.

For example, on the west coast; that is, in the Northwest, there was a terrific blowdown of timber which required a large amount of legal services a couple of years ago, and there came to be a demand right in that area which could not have been anticipated in the preceding budget hearings by the Solicitor's Office.

Accordingly, we use the money where we can for lawyers and clerical help.

Senator BIBLE. Well, as I understand it, you would like to fill the 18 vacancies, but because of budgetary restrictions, you are only asking for $37,000.

Mr. BARRY. That is correct.

COMPLETELY FILLING AUTHORIZED VACANCIES

Senator BIBLE. If you were to fill the 18 vacancies which are now authorized, how much would it cost you?

Miss MAHON. $112,995.

Senator BIBLE. An additional $112,995, or a total——

Miss MAHON. A total?

Senator BIBLE. A total of $112,995 would fill the vacancies that are now authorized?

Miss MAHON. Mr. Chairman, that would be on an annual basis.

Senator BIBLE. Pro rata to include parts of the fiscal year? Is that what you mean?

Miss MAHON. No, for the full fiscal year. For the full 12 months of occupancy of these positions, $112,995.

Mr. BARRY. If we could fill them all on July 1, it would cost approximately that much.

TOTAL AUTHORIZED POSITIONS

Mr. WEINBERG. Ten of these positions are clerical, Mr. Chairman.

Senator BIBLE. You are only talking about eight lawyers?

Mr. WEINBERG. Eight lawyers.

Senator BIBLE. Of course, you do not include in lawyers the people who work independently for the Bureau of Land Management?

Mr. BARRY. No. These are the lawyers in the Solicitor's Office. Of course, there are many lawyers in Government who are not assigned to legal positions. But all of the legal work in the Department is done in the Solicitor's Office. All of the legal clearances must be given in the Solicitor's Office.

Senator BIBLE. This I understand, but does not the Bureau of Land Management as such employ lawyers who act as lawyers?

Mr. BARRY. They are lawyers. I suppose you would say they act as lawyers. They handle the appeals to the Director of the Bureau of Land Management, primarily.

Senator BIBLE. As lawyers?

HEARING EXAMINERS

Mr. BARRY. I suppose as lawyers. They are not hearing examiners. They are reviewing officers or land law examiners. In the field a hearing will be held. Now, these lawyers are not in our budget; that is, the hearing examiners in BLM that actually hold the hearings.

Senator BIBLE. Are within your budget?

Mr. BARRY. Are they included or excluded?

Senator BIBLE. They are not in your budget. They are in the Bureau of Land Management budget.

Mr. BARRY. If the applicant is aggrieved at the decision that is made in the local office, the land office, it is appealed to the Director of the Bureau of Land Management, and he decides the appeal within his bureau. There are a number of people in BLM who have legal training.

Some of them have had legal training and are not members of the bar, but they do the work and process and prepare the Director's decisions on appeal.

If the applicant is still aggrieved, he appeals to the Secretary, and there is a branch in the Office of the Solicitor that handles land appeals.

BACKLOG OF WORK

Senator BIBLE. How much backlog is there within your Department, if you could answer that question?

Maybe we should define it a little more closely. How many opinions do you have, or requests for opinions that have not been finalized? How many legal decisions are before you for your final consideration that have not been finalized?

Mr. BARRY. Well, let me answer that in two parts.

Of course, you know that the Department is a manifold organization. It is a large organization. And there are a great number of legal

problems presented to us. We have a large number of offices operating in different areas.

Now, each of these offices may have a backlog. This would make it impossible to tell at any minute what the current state of the backlog is.

### Branch of Land Appeals

We also have a sort of an administrative quasi-judicial proceeding in the Department. We have the Branch of Land Appeals. In January of 1962, the backlog in the Branch of Land Appeals was 793 cases.

We have introduced a number of devices and reforms and shortcuts which are justified, and which do not impair any of the litigants' rights, and we have reduced the backlog to 419 cases, and we expect further improvement, because we are still working on this problem.

The backlog of 700 cases meant that some applicant, or someone who had a land appeal pending, might have to wait for 2 or 3 years for a final administrative decision on his land appeal. He must exhaust his administrative remedy before going to the courts in cases in which the departmental decision is adverse to him.

### Additional Personnel and Shortcuts

Since 1962, we have added two people to our land appeals staff and that has helped somewhat. But we have also taken other shortcuts. We have had an almost inflexible rule, for example, that these appeals are taken up in order. We feel it is perhaps not good public relations if we take them up in order, and we delay 3 years for a decision, and then tell the unfortunate applicant that he waited 1 day too g to file his application for appeal.

So we have decided we are going to go through and get those cases out of the way. Where procedural grounds exist for disposing of an appeal, we will dispose of them early, so that the appellants can go ahead and take their cases to court.

We have also found that a large number of appeals do not turn on well-settled issues, and the facts that have been established at hearings are decisive. Now, those are cases where we have delegated authority to Assistant Solicitor Ernest Hom to sign the appeals in that area.

### Memorandum Opinions

We have also introduced memorandum opinions in appropriate cases to eliminate the various backlogs that have been accumulating because of multiple review. We have also eliminated the requirement that the Deputy Solicitor or the Solicitor sign each and every opinion prepared by the Branch of Land Appeals. This requirement meant that as busy as they were, their desks were piled actually 2 or 3 feet high with cases that were pending when Mr. Edward W. Fisher took over as the Deputy Solicitor in 1961.

### Bureau of Land Management Appeals Backlog

So that is the status. That is what we have been doing with our land appeals.

We have Indian appeals——

Senator BIBLE. May I interrupt there to ask whether it is not true that most of your backlog on appeals lies in this land area, within the area of the Bureau of Land Management? Is that correct?

Mr. BARRY. Yes, I think that is correct.

Senator BIBLE. I know this is the one area where I receive the most complaints, and I am sure my good friend from Alaska receives a good many complaints in this processing of land appeals.

Mr. BARTLETT. I will testify that that is correct.

SHORTENING APPEALS TIME

Senator BIBLE. And this is a thing we have been repeatedly trying to improve. There is a bill before the Legislative Committee, as you know, in which we have asked for comments as to some method of shortening up the time which it takes this applicant.

There are these 3 weary years before they can even get into court. We would like to see them get into court at the earliest possible moment.

Both of the Alaska Senators have shown great interest in this. We have not come up with a foolproof legal method of shortening the time materially, but we are still working on it.

Mr. BARRY. Well, to be a little facetious about it, it looked like it was going to become necessary to establish a separate branch to answer legislative correspondence and explain why we had been delaying so long in the Branch of Land Appeals.

But I think that the situation has shown very distinct improvement. I am much encouraged by it, and I think it will be very much improved.

Senator BIBLE. If you had another two lawyers, could you shorten up this backlog very much? How many lawyers would it take to cut this backlog down?

Mr. BARRY. Well, I would hesitate to say that that is the problem right now.

RECOMMENDED STUDY OF BACKLOG PROBLEM

I just would not want the committee to think that all we need is more lawyers, when many of the problems arise because of the practices and procedures that have been followed in the office from time immemorial. Many of these practices were set up at a time when the volume was not anything like what it is today—with the number of appeals coming to us from Bureau of Land Management decisions and the number of applications being made in the field.

I would prefer to wait until we have had an opportunity to study that situation.

There is a request for funds to fill one additional attorney position in that office.

Senator BIBLE. How long would it take you to complete the study, so that you would be in a position to make recommendations that would be timesaving to the land applicant?

We are all driving at the same thing. You say that you could not indicate it now. When could you indicate it? You say it is under study. When would you be in a position to make recommendations?

Mr. BARRY. Let me tell the committee what I have been doing in the last year.

SPACE PROBLEM

I became convinced, after the budget hearings before the committees last year in both Houses, that we could not expect to solve our problems just by asking for more money. For one thing, we have problems of space. We do not have any place to house these people. If we separated them and put some of them in another building, that would complicate the situation far too much.

So I undertook to use some of the management experts that we have in the Office of the Secretary. Mr. Beasley, I think just testified with respect to some items in the budget relating to management experts, and we have had them come in to assist in the study of the operation, organization and management of the Solicitor's Office. The lawyers have invited these experts in to look at the way the lawyers do their work, and see if any improvement can be made.

MANAGEMENT EXPERTS STUDY

Now, this is not a task force program. We do not expect a report out of them, but they have already made a large number of excellent suggestions that have saved time for lawyers and which have shortened the work. We expect further improvements.

Now, I would say to the committee that we are going to continue to survey and study this office, both in Washington and in the field. It is doubtful there will be ever a time when we will have completed the study. This is a continuing project.

I think we will be able to show further improvements to the committee next year in the backlog situation, but I hesitate to predict that in a month or 2 months we will have some specific thing to report, because that would mean we would have to stop these experts who are working in the entire office and tell them to concentrate on that to meet a deadline.

Senator BIBLE. I am not suggesting that you be put on deadline. I understand that a study of this kind is a continuing study, and that you are continually looking for improvements in administrative procedure. Is that not true?

BACKLOG CUT IN HALF

Mr. BARRY. Yes. We have nearly cut this backlog in half, and I think it shows sufficient promise so that we can expect to improve it even more, because as it goes down, the burden will be less heavy.

Approximately 430 cases come into the land branch each year. You see, our 700 case backlog represented a 3-year backlog, almost. If we could cut it down to where there was only a 1-year backlog, then we could look intelligently at the question as to whether we could use any more people.

Sometimes, if you have too many people, they get in each other's way and you have a multiple review system. I think we might work it out for another year on the basis of improved administration.

UPDATING LAND LAWS

Senator BIBLE. I recognize that the Congress must share a lot of the responsibilities, because we certainly have not updated our land

laws. They are much in need of working over, and we are going to attempt to do something about it. But that is a tough task in itself.

Mr. BARRY. We have been working on it. I would hate for anyone to give us a deadline on that.

Senator BIBLE. As you know, we have a land commission bill that is presently pending in the House, and maybe this will offer part of the answer.

PROPOSED PAY INCREASES

I do not know whether you have had adequate opportunity to cover the $50,000 request that you make to meet the cost of within-grade promotions. You may have covered that in your justification. You can go ahead and highlight it.

Mr. BARRY. These are almost the same as pay increases. Without a negative report on somebody, they come almost as a matter of course.

Of course, we do not have very many lawyers where we would refuse a within-grade increase when they become eligible. We do have some, and we do refuse them sometimes, but the only way we could save on that $50,000 is to be just unreasonably brutal, where people have done a good job, and simply say that their level of competence is not sufficiently high to justify the within-grade increase that Congress has authorized.

Senator BIBLE. Well, this $50,000, then, is almost mandatory on your part?

Mr. BARRY. I would say the $50,000 and the $6,000 for personnel benefits——

PERSONNEL BENEFITS

Senator BARTLETT. What do you mean by that? I was intrigued by that statement. Is $6,000 for benefits attributable to the pay raise?

Mr. BARRY. All right. The personnel benefits include retirement and such.

What are all the items that are included, Miss Mahon?

Miss MAHON. Insurance, health benefits, and retirement.

Mr. BARRY. These are based on the amount of money we get.

Senator BIBLE. That is the $6,000 item?

Mr. BARRY. That is correct.

Senator BIBLE. The Senator from Alaska?

Senator BARTLETT. I would like to refer to these appeals just for a moment or two, Mr. Chairman.

You are to be congratulated very warmly, Mr. Barry, for reducing the backlog by almost 50 percent.

If there is such a thing as an average—and there is not in this instance, I realize, how long does it take to process an appeal?

LENGTH OF TIME TO PROCESS AN APPEAL

Mr. BARRY. If you are thinking about the time that it takes for a lawyer to pick up a file with which he is completely unfamiliar, the facts he is completely unfamiliar with, and work through the file, I imagine it would not take more than—well, at the outside, maybe 6 or 8 weeks, where some very difficult question is presented, which requires a great deal of research, and it is presented for the first time.

The delay, frankly, is due to the fact that the number of cases which are coming to us are quite a great deal larger than they had been in the past. In 1 year we got 600 cases.

Now, the reason for that was that evidently there was some pressure on the Bureau of Land Management to get rid of a lot of cases, and they processed over a thousand cases that year, and of those, 600 people appealed from the Director's decision to us, so that it is quite difficult.

I am giving these figures round, and I am trying to give you the impression, in broad strokes, of what the situation is, rather than give you exact and precise figures.

### Eliminating Intermediate Appeal

One of the suggestions has been made that in order to shorten the time, we eliminate the intermediate appeal. I think this would be a good idea, but it has got to be done with caution, and I think with a good deal of preparation.

They get a large number of appeals in the Bureau of Land Management every year, something in the order of 1,200, so that if there was no intermediate court, as it were, to screen those cases out and limit us, we would be completely bogged down, we would get more of a backlog in 1 year than we have altogether now, you see.

I have just got a note from Mr. Duncan that the average is 11 months on land appeals from the time they arrive in the Office of the Solicitor.

### Normal Case-Handling Procedure

Senator Bartlett. You spoke about having delegated some authority. With reference to those cases that are not delegated, are you required finally to review the file and make a determination?

Mr. Barry. Well, let me tell you what happens. A decision is written in the Branch of Land Appeals, that carries the surname of the author of the opinion, the man who did the work, and of Mr. Hom, the Chief of the Branch, and is then sent up to my office, and either Mr. Weinberg or I will then read the opinion.

If we have any questions about it, we will call in the people who worked on it, and we will ask them some questions, and if necessary, it will be revised and rewritten in accordance with our requirements, and then it is signed.

Senator Bartlett. I think Mr. Barry is to be complimented for not informing the committee, as so many might in a similar situation, that solutions could be arrived at by the addition of more personnel.

This shows, among other things, that you are exploring every possible means to shorten the time for disposition of these land appeals and to reduce the backlog.

### Attorneys and Starting Salary

How many attorneys do you have in the Office of the Solicitor?

Mr. Barry. 201, now.

Senator Bartlett. What is the salary for the attorney who enters upon duty initially?

Mr. Barry. A little over $7,000 a year. This would be a grade 9.

Senator Bartlett. What is the top grade?

Mr. Barry. The top grade is 17.

I am talking about the highest grade in the office besides the Solicitor. The highest grade in the office is that of the Deputy Solicitor, Mr. Weinberg, grade 17. We have two 17's. We have Mr. Max Edwards, who is the Legislative Counsel. We have five associate solicitors who are grade 16's.

### Recruiting Attorneys in the Field

Senator Bartlett. Do you have difficulty in recruiting lawyers at that entrance salary?

Mr. Barry. I have not had a great deal of difficulty in Washington. In the field, I think they have more difficulty. But this is a problem which is handled pretty much by the regional solicitors.

### Regional Solicitors

We have a meeting of all regional solicitors, at which time we determine what part of our appropriation is going to be used in the Washington office and what will be used in each regional office. And they come in with their requests, and we divide our funds up, as it were, as soon as the budget has been settled and the appropriation bill have been passed.

Senator Bartlett. Are the regional solicitors all of the same grade?

Mr. Barry. They are all grade 15's.

Senator Bartlett. Thank you.

That is all, Mr. Chairman.

### State Office in Wyoming

Senator McGee. I have been concerned for quite some time now about the fact that the Solicitor's office does not yet have a State office in Wyoming. The need for a Solicitor's office in Wyoming has been brought to my attention on numerous occasions in the past and I don't think that anyone questions the need and justification for the establishment of such an office. As you probably are well aware, the Bureau of Land Management field office in Cheyenne, Wyo., processes more lease applications than any other field office. This BLM office is probably one of the busiest State offices now operating. Naturally this great volume of business gives rise to a significant amount of legal business, and yet there is no Solicitor's office in Wyoming to handle this legal business. I am advised that at the present time an attorney from the Denver Solicitor's office is required to journey to Cheyenne quite frequently—three or four times a month, as a matter of fact—to take care of this business.

How many personnel would be required to staff a Solicitor's field office in Wyoming to do the work that needs to be done out there?

Mr. Barry. We would expect to staff the office with a field solicitor and one stenographer. Once in full operation, we would anticipate the need of an additional attorney.

Senator McGee. What are the grades and salaries of these personnel?

Mr. Barry. Field Solicitor, GS–14, $13,615; attorney-adviser, GS–9, $7,030; stenographer, GS–5, $4,690; total, $25,735.

OPERATING COSTS OF STATE OFFICE

Senator McGEE. What other costs would arise in connection with the establishment of this Solicitor's field office?

Mr. BARRY. The approximate costs involved in opening and operating such an office are as follows:

| | | |
|---|---|---|
| 21 | Travel | $500 |
| 22 | Transportation of things | 100 |
| 23 | Rent, communications, and utilities | 4,500 |
| 24 | Printing and reproduction | 25 |
| 25 | Other services | 100 |
| 26 | Supplies and materials | 200 |
| 31 | Equipment | 1,500 |
| | Total | 6,925 |

Senator McGEE. How much money would be needed to establish an operating Solicitor's field office in Wyoming this year?

Mr. BARRY. The establishment and operation of a field office at full strength, that is, with a field solicitor, an attorney adviser and a stenographer, for the entire fiscal year 1965, would cost approximately $32,660.

Senator McGEE. Isn't it true that the present arrangement requiring an attorney to commute frequently from Denver to Cheyenne results in a considerable among of administrative and travel expense, not to mention the personal inconvenience involved?

ADVANTAGES OF A STATE OFFICE

Mr. BARRY. Yes. It is true that the present arrangement does require fairly frequent trips from Denver to Cheyenne. A great deal of business is handled through the mails which is less expeditious and probably less effective than personal consultation. While it is doubtful that the establishment of the Cheyenne office would result in any monetary savings to the Department, it would be a more convenient and effective means of providing legal services to the bureaus and agencies served in this area.

Senator McGEE. Would not the people of Wyoming who deal with the BLM office be much better served with an operating Solicitor's office in the State?

Mr. BARRY. It is our observation that, under the present arrangement, the Denver regional office has been able to provide adequate legal services to the bureaus and agencies in Wyoming and specifically, in the Cheyenne area. However, without a field office in that State, delays are inevitable. Personal, on-the-spot legal advice is, of course, a much more preferable arrangement. I can say, therefore, that we could expect improvements in providing legal services in these areas if we had an operating field office.

Senator McGEE. Were funds requested this year to set up this office in Wyoming?

Mr. BARRY. Not specifically. We requested sufficient funds to fill 8 attorney vacancies and 10 clerical positions. The list heretofore placed in the record is illustrative of where, at the time it was compiled, these positions would be located. By staffing the Denver positions indicated on the list, the senior attorney who has been handling the Cheyenne work would have been freed for transfer to Cheyenne,

However, final decision on the placing of these positions would only be made after funds became available and in consideration of the needs of the service as they then appeared.

Senator McGEE. Are these funds presently in the budget estimates?

Mr. BARRY. No.

Senator McGEE. Did the Bureau of the Budget delete the required funds to establish this office?

Mr. BARRY. Not with regard to any specific positions or locations. However, the funds allowed by the Budget Bureau for filling positions in the Solicitor's Office will not be sufficient to encompass the costs of filling all the vacancies mentioned in the list which has been inserted in the record. Since we can fill only a small number of the existing vacancies with the funds allowed for this purpose by the Bureau of the Budget, we must fill them according to priorities as they appear following the passage of the 1965 appropriation bill. These priorities will be determined at that time on the basis of personnel needs in our entire office.

Senator BIBLE. That was a very fine statement, Mr. Barry, and we will work very closely with you in attempting to make progress in a very difficult field.

Thank you very much.

Mr. BARRY. Thank you.

## INDIAN CLAIMS COMMISSION

## STATEMENTS OF ARTHUR V. WATKINS, CHIEF COMMISSIONER, AND JEAN R. HANNA, ADMINISTRATIVE OFFICER

### BUDGET REQUEST FOR 1965

Senator BIBLE. Our next hearing is on the Indian Claims Commission, and we are very happy to welcome back a former colleague of ours, the very distinguished Senator from Utah, now wearing the hat of a judge.

I am very happy to see you, Senator Watkins.

Mr. WATKINS. I am delighted to be here, and I am glad you are glad I am here, when we start to ask for some money.

Senator BIBLE. And you are accompanied by Mrs. Jean R. Hanna, the administrative officer.

I am always glad to see you, too.

Mrs. HANNA. Thank you.

Senator BIBLE. The Indian Claims Commission presents a proposed budget of $313,000 for fiscal year 1965, an increase of $16,000 over the amount appropriated in fiscal year 1964. The statement in justification of this request will be printed in the record.

(The justification referred to follows:)

### PURPOSE STATEMENT

The Indian Claims Commission was organized on April 10, 1947, under the act approved August 13, 1946 (25 U.S.C. 70).

The duties of the Commission are to hear and determine all causes arising under section 2 of the act, up to and including August 13, 1946, on behalf of any Indian tribe, band, or other identifiable group of American Indians residing within the territorial limits of the United States. The act provides that the claims may be heard notwithstanding any statute of limitations or laches, but all other defenses shall be available to the United States.

Of the 596 claims filed, 152 have been completed. Payments of awards are dependent upon subsequent appropriations made through the claims, judgments, and private relief acts appropriation to the Treasury Department. Final awards through December 1963 total $94,914,641.

*Salaries and expenses*

| | |
|---|---|
| Appropriation, 1963 | $297,000 |
| Appropriation, 1964 | 297,000 |

SUMMARY OF INCREASE AND DECREASE, 1965

| | |
|---|---|
| Personal services | +10,000 |
| Personal benefits | +2,000 |
| Travel | −1,000 |
| Communication | +1,000 |
| Printing and reproduction | +1,000 |
| Supplies and materials | +2,000 |
| Equipment | +1,000 |
| Total | +16,000 |
| Budget estimate, 1965 | 313,000 |

*Analysis by activities*

| Activities | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Hearing and adjudication of Indian claims | $274,000 | $297,000 | $313,000 | +$16,000 |
| Unobligated balance no longer available | 23,000 | | | |
| Total | 297,000 | 297,000 | 313,000 | +16,000 |

REQUIREMENTS FOR FISCAL YEAR 1965

The estimate for funds needed to operate the Indian Claims Commission in fiscal year 1965 is $313,000.

JUSTIFICATION FOR PERSONAL SERVICES

The following summary table presents the essential facts with respect to this item.

| | 1964 estimate | 1965 estimate | Estimated change in 1965 from 1964 |
|---|---|---|---|
| 1. Number of positions | 22 | 22 | 0 |
| 2. Annual salary cost of permanent positions | $262,000 | $272,000 | +$10,000 |
| Total personal services | 262,000 | 272,000 | +10,000 |

Increase in personal services and related benefits due to full-time financing of eight attorney positions at increased rate and higher pay scale for part of 1964 for all positions, also, other small increases as shown.

DETAILED STATEMENT

12. *Personal benefits.*—Section 4(a) of the civil service retirement amendments of 1956 (70 Stat. (747)) requires agencies to match the 6½-percent contribution of employees. This also covers FICA, employees' group life insurance, and employees' group health contributions. This is a $1,000 increase due to increased rates of pay.

21. *Travel expense.*—$5,000 is requested for travel. The principal provision of the Indian Claims Commission Act requiring expenditures for travel by the Commission and members of its staff are contained in 25 U.S.C. 70p, 709.

23. *Communications.*—$4,000 is requested to cover the cost of telephone facilities, long-distance calls, and postage. This represents an increase of $1,000 to, cover higher rates of telephone service.

24. *Printing and reproduction.*—The estimate for printing and reproduction for 1964 is $3,000, and is to cover the printing of stationery and envelopes, miscellaneous forms, and binding repairs to old books in use by the Commission and reproduction of the opinions rendered by the Commission.

25. *Other services.*—The amount of $3,000 is to cover the cost of maintenance of office machines, premiums on surety bond for two certifying officers, and miscellaneous services by other agencies, including the Commission's pro rata share (approximately $300) for emergency service in the health unit in the building in which we are located.

26. *Supplies and materials.*—$4,000 is requested and is to cover the cost of blank paper, binders, lackets, folders, stencils, carbons, and miscellaneous office supplies.

31. *Equipment.*—The estimate for this year is $2,000 and is to cover the cost of additional file cases, incidental equipment, as needed, and repairs to furniture.

*Object classification*

| | | 1963 actual | 1964 estimate | Estimated change in 1964 from 1963 | 1965 estimate | Estimated change in 1965 from 1964 |
|---|---|---|---|---|---|---|
| 11 | Personnel compensations: Permanent positions | $242,000 | $262,000 | +$20,000 | $272,000 | +$10,000 |
| 12 | Personal benefits | 18,000 | 19,000 | 1,000 | 21,000 | +2,000 |
| 21 | Travel and transportation of persons | 2,000 | 6,000 | 4,000 | 5,000 | −1,000 |
| 23 | Rent, communications, and utilities | 2,000 | 3,000 | 1,000 | 4,000 | +1,000 |
| 24 | Printing and reproduction | | 2,000 | 2,000 | 3,000 | +1,000 |
| 25 | Other services | 2,000 | 2,000 | | 2,000 | |
| 26 | Supplies and materials | 4,000 | −2,000 | 2,000 | 4,000 | +2,000 |
| 31 | Equipment | 4,000 | −1,000 | 3,000 | 2,000 | +1,000 |
| | Total obligations | 274,000 | 297,000 | +23,000 | 313,000 | +16,000 |

JUSTIFICATION STATEMENT

Senator BIBLE. Your statement appears to be very brief, refreshingly brief, and I think you might as well read it in full, if you like, Senator.

Mr. WATKINS. I would like to. Thereby I will keep to the subject and get out of your way.

Senator BIBLE. It tells the story. I think you should read it. It is a very short statement.

Mr. WATKINS. Mr. Chairman, our detailed statement, prepared by our clerk, is submitted as a part of our presentation. We asked for an appropriation of $325,000, and were allowed $313,000 by the Bureau of the Budget.

PERSONNEL

New employees to be added were cut, so that we will have 22 employees, instead of 24, as requested.

We have assured the President that all of these are needed, and until our accelerated program of adjudication is in full operation, we shall not need more than 22 employees; that is, of course, including the three members of the Commission.

IMPECUNIOUS INDIAN CLAIMANTS AND PUBLIC LAW 88–168

Our activities have been slowed down materially by the inability of impecunious Indian claimants to present their cases because they were unable to employ and pay needed expert witnesses.

To remedy this situation, Congress, at our request, enacted Public Law 88–168, which became effective on November 4, 1963. A revolving loan fund of $900,000 was authorized, from which the Secretary of the Interior could make loans to Indian litigants so that they could secure expert witnesses and researchers to aid them in the presentation of their claims to the Commission.

We are advised that the Secretary of the Interior has made a supplemental request for an appropriation of $900,000 to activate this act, and that request is now before you as a part of a supplemental appropriation.

Senator BIBLE. That is true, Senator Watkins. In addition to that, the Department of Indian Affairs has already testified as to the need for the supplemental request for $900,000. We have already had a hearing on that amount of money.

DELAYED PROGRAM

Mr. WATKINS. We are very glad they did that, because this program has been too long delayed already.

It is over 2 years ago since we were invited by the chairman of the Interior Committee to meet with him and explain our operations, and in that meeting, we explained very definitely this probem of impecunious Indian tribes and the necessity for them getting some help to hire their witnesses, their expert witnesses, particularly.

And we could not find any opposition in the Congress. Everybody seemed to be for it the first year it was introduced, but nothing happened. The hearings were held, and no reports were made, and so we didi not get it.

Then we came back the next year, last year, and presented it again. Some opposition developed, based upon misunderstandings as to what it was intended to do, and after some work here in the Congress, I was able to convince those who were opposed that they should not be opposed, and it finally passed unanimously in both Houses.

We were very grateful that the act was adopted, even though it had been delayed.

IMPLEMENTING MONEY NOT RECEIVED

Senator BIBLE. But to date, you have never received one single solitary cent?

Mr. WATKINS. Oh, no.

Senator BIBLE. You have an act without the implementing money to go with it.

Mr. WATKINS. That is right. Not only that, but we are advised that there are applications filed now by these tribes, who need this financial help, to the extent that all of the $900,000 is already applied for, and there are many Indian tribes that are still outside, needing help.

Senator BIBLE. Does any of that go to lawyers?

Mr. WATKINS. No.

Senator BIBLE. This is for witnesses and the researchers?

Mr. WATKINS. That is right. The lawyers do not get any of it. It may help them to earn their fee a little sooner than they otherwise would.

ATTORNEYS' FEES

Senator BIBLE. Their fee would be by the consent of the Indian Claims Commission as to the percentage to be allowed upon recovery?

Mr. WATKINS. Yes; unless the contract itself, which has been approved, or which should be approved, by the Interior Department, makes it specific as to the percentage they are to get. There are some contracts of that kind, and they cannot go above 10 percent in the contract.

PERCENTAGE FIXED BY LAW

Senator BARTLETT. In that connection, is that 10-percent ceiling fixed by law? Or by regulation?

Mr. WATKINS. It is fixed by law. And an award may be made by the Commission. Unless the contract fixes it specifically, then we have the obligation and the job of determining how much the attorney fees shall be.

We have had quite a number where the fee has already been fixed at a certain percentage. We have quite a lot of activity in connection with these attorney fees. The attorneys, of course—this has been going on for a good many years, and sometimes it is their fault that they have not pushed the cases faster than they have, and sometimes they have had to advance some costs to help the Indians.

That is not a good situation, as a matter of fact, and they are entitled to claim, as the expenses of these suits, the money they advance to help the Indians in these cases.

FEES CONTINGENT ON JUDGMENT

Senator BIBLE. Are all these fees contingent upon a judgment?

Mr. WATKINS. The attorney fees are, yes, completely contingent.

Senator BIBLE. And if an attorney takes an Indian claimant's case, and your decision is adverse, the lawyer is taking that risk?

Mr. WATKINS. Yes. He is taking that risk. But they did not have any difficulty finding lawyers to accept the business.

Senator BIBLE. I think we both know of lawyers who have done pretty well in this field.

Mr. WATKINS. They have not done badly. I will say that.

Senator BIBLE. Thank you, Senator.

Mr. WATKINS. To finish my statement, here——

BUDGET REQUEST AND SUPPLEMENTAL REQUEST

Senator BIBLE. Pardon my interruption, but it seemed to be appropriate as to the $900,000. It seemed to me you have made an excellent case legislativewise.

Mr. WATKINS. And we need it all now, and we will have to come back and ask for further authorizations, I assume.

Senator BIBLE. The $900,000 was the ceiling?

Mr. WATKINS. That is right. But the House bill had an item for $3 million.

Senator BIBLE. I see.

Mr. WATKINS. And then the Senate insisted on cutting it down, and rather than have the bill defeated, because we wanted more money, we thought, "Well, go ahead, and fix the $900,000, fix it at $900,000, and then we will find out whether it is enough."

LOAN REPAID INTO REVOLVING FUND

Senator BIBLE. Of course, should these claims be prosecuted to successful judgment, then the loan can be repaid into the revolving fund?

Mr. WATKINS. That is correct.

Senator BIBLE. With interest, as I understand.

Mr. WATKINS. Yes, with interest.

Senator BIBLE. Thank you, Senator.

I think you were down to the last sentence on the first page.

Mr. WATKINS. Yes.

APPLICATIONS EQUAL TO BUDGET REQUEST FILED

We are also advised that applications for practically all of this sum have already been filed, or will be shortly. We urge this committee to approve the sum requested by the Interior Department, and we urge that this item should be in the first appropriation made this year, whether it is the supplemental or whether it is the regular appropriation bill for the Department.

Senator BIBLE. I, too, would hope that would be done, and without delay.

Mr. WATKINS. We have noted the President's program to better the economic situation of the American Indians. We are in full accord, and point out that much help can come to many of the tribes out of the awards this Commission may make as our adjudications come to final judgment, wherein the Indians are victors. And of course they do not always win.

MARGINAL CLAIMS

There are many claims filed which are marginal, as a matter of fact, and of course, many of those have been weeded out, so that the statement we have at the bottom of this page, for instance, shows that 108 cases were dismissed. Part of those were fringe cases. Only 50 tribes actually got awards.

We are in full accord and point out that much help can come to many of the tribes out of the awards this Commission may make as our adjudications come to final judgment wherein the Indians are victors.

STATUS OF INDIAN CLAIMS

In this connection, I submit a statement of the status of the Indian claims now pending before this Commission as of January 1, 1964.

Senator BIBLE. That will be incorporated in full in the record. I think it is worthy of note that the total awards made by the Indian Claims Commission to date are $94,914,641.

(The statement referred to follows:)

*Claims pending, dismissed, and awarded*

| | |
|---|---|
| Pending on title (including some accounting cases) | 231 |
| Pending on value | 32 |
| Pending on offsets | 6 |
| Awaiting briefs and findings | 78 |
| Assigned for decision | 29 |
| On appeal, U.S. Court of Claims | 18 |
| Pending on motion to dismiss, and summary judgment | 20 |
| Pending on motion to rehear | 3 |
| Dismissed | 108 |
| Pending compromise settlement | 13 |
| Final awards | 50 |
| Total | 588 |
| Total awards to date | $94,914,641 |

LENGTH OF TIME TO ADJUDICATE ALL INDIAN CLAIMS

Senator BIBLE. Now, is there any way that you can determine as to the length of time that it will take completely to adjudicate all Indian claims in the United States?

Mr. WATKINS. I wish I could make a fairly accurate estimate, but I think it is quite impossible.

You see, all of these claims—when we make an adjudication, the Indians have a right of appeal to the Court of Claims, or the Government also has a right of appeal. These are adversary proceedings, fought sometimes rather vigorously, and when they go up to the Court of Claims, it takes some time for them to get around to deciding the questions appealed.

APPEALS AND FURTHER ACTIONS

Only about, as I remember, 1 claim a month gets on the calendar for argument, and we have something like 18 or 19 appeals pending there now.

But if the adjudication is for considerably less money than the Indians think they ought to get, they always insist on an appeal, and the attorneys under contract are bound to appeal if the Indians want an appeal, though they personally feel an appeal is not justified.

That is one of the things we have to take care of. And sometimes the Court of Claims sends them back for further action. And there have been times that the court has reversed itself after we have gone ahead with a long line of cases based on previous rulings, and then we have to remodel all those cases again to carry out the new rulings.

Senator BIBLE. Then there are many, many Indian tribes throughout the United States who still do not have their claims adjudicated?

Mr. WATKINS. Oh, yes; the majority of the claims are still left.

ACCELERATED PROGRAM TO ADJUDICATE CASES

We have been trying, with an accelerated program, to get more and more of these cases adjudicated each year, but then we ran into this problem about impecunious Indians and their lack of money to properly prepare their cases.

Senator BIBLE. Is there a time limit set within which they must file these claims?

Mr. WATKINS. They have all been filed. In 1951, August 13, 1951, they had to have them all filed, and there have been no claims filed since.

BACKLOG OF CASES

But, you see, we immediately had a backlog of around 852-some-odd causes of action contained in maybe 370 docket numbers. And then some of those docket numbers had 15 or 20 or 25 causes of action in each docket number.

So we had to break those down, because it is obviously impossible to try one of those cases with all of those causes of action in a single docket number. We would never get through with it.

And it takes many, many years to prepare these cases—as many as 10 years in preparing them—so when we get them, with three judges there to have to be brought—at least two of them—into agreement, before we can issue a decision, it slows things down.

And cases that have been worked on for 10 years in preparation, we cannot be expected to adjudicate them in 3 or 4 months. Sometimes it will take a year and a half or 2 years, because you can only assign one staff man to work with the Commission in each case, and new hearings must go on in the meantime.

Senator BIBLE. The number of Indian claims that must go to final adjudication are already known, because they had to be filed before 1951?

Mr. WATKINS. That is right. We are working against a backlog that was given us in the beginning, and sometimes it gets an increase by the activities of the appellate court and mistakes we have made, or else they would not have reversed us.

And almost anything can happen in these claims cases, as we are finding out from time to time. No matter how hard we try to speed up our activities, we find something happens that makes our efforts somewhat ineffectual.

But we are doing our level best. We have adopted an accelerated program, and we hope to make it work.

Senator BIBLE. Thank you very much, Senator.

Senator Bartlett?

LOCATION OF COMMISSION

Senator BARTLETT. Where does the Indian Claims Commission live officially?

Mr. WATKINS. In the General Accounting Office on G Street, 441 G Street.

ORGANIC ACT REVISION

Senator BARTLETT. Do you see any need at this time for revision in any way of your organic Act?

Mr. WATKINS. We do not. I think a revision would probably create more problems for us, because we have now interpreted and got a working legal setup that might have to be revised, if we started tinkering with the act.

Senator BARTLETT. I suspect that something like that may lie ahead of us, because although I do not know whether the claims would go to the Indian Claims Commission, it is certain that there will be further claims originating in Alaska in the days to come.

CLAIMS ORIGINATING IN ALASKA

You, particularly, Senator, are aware of the situation there, because of your service in the Senate, when you took such a special part in the determination of the Tongas National Forest resolution.

Our difficulty then, you will recall, as it is today, is that these claims may be there in all validity, but there has been no actual taking, as was the case in the 48 States.

Mr. WATKINS. Senator, let me point out to you that that is all provided for.

Any claim that comes into existence since August 13, 1946—and of course it cannot come into existence until there is a taking—can be filed in the Federal district courts or the Court of Claims.

Senator BARTLETT. Does this except the Claims Commission from any necessity for making the determination?

Mr. WATKINS. Yes. The claims we have all had to have come into being prior to August 13, 1946.

Senator BARTLETT. Unless there should be a revision of the basic law.

Mr. WATKINS. Oh, yes. But I would say we have plenty of work to be done for years to come, and we would not want anything to be added to it.

Senator BARTLETT. You are not asking for the Alaska cases?

Mr. WATKINS. No, sir; not the new ones. We have some of the old ones.

Senator BARTLETT. Yes, I understand that.

ATTORNEYS WITHDRAWING FROM CASES

Mr. WATKINS. And we find that attorneys who signed up in those old cases have withdrawn from the cases, or the contracts of employment with those Indians in Alaska have not been renewed, and we find quite a number of your constituents up there without an attorney.

Senator BARTLETT. I realize that, and regret it.

Mr. WATKINS. And the attorneys who signed originally do not want to have anything more to do with it.

Senator BARTLETT. I would be willing, Mr. Chairman, to look for a more definitive answer than Senator Watkins will make for a determination of all these claims.

FINAL DETERMINATION OF ALL INDIAN CLAIMS

Mr. WATKINS. I hope with some support in the adjudication it can be finished in 10 years, and we were trying to do it in less time than that.

Senator BARTLETT. In saying that, I was not intending to make any remark derogatory in any sense of the work being performed by the Indian Claims Commission.

It was only that these issues are so complex, there are so many of them, they are so interminable, so difficult of proper judgment, that we seem to go on forever.

Mr. WATKINS. Of course, you cannot take away the right of appeal from the Indians. That would be improper, and I would not suggest it. But if they did not take these appeals, we probably could go a lot faster.

Senator BARTLETT. I think you are going pretty fast, if you think you might be able to wind it up in 10 years.

Senator BIBLE Thank you very much, Senator Watkins. It is always nice to see you and hear from you.

## CIVIL WAR CENTENNIAL COMMISSION

## STATEMENTS OF HON. FRED SCHWENGEL, VICE CHAIRMAN, AND DR. JAMES ROBERTSON, EXECUTIVE DIRECTOR

### 1965 BUDGET REQUEST

Senator BIBLE. Our next group will be the Civil War Centennial Commission.

Mr. Schwengel is with us, this morning, and Dr. Robertson, and Mr. Gass.

In the fiscal year 1965, the Civil War Centennial Commission proposes a budget of $100,000, the same amount appropriated in fiscal year 1964.

The justification for the request will be printed in the record.

(The justification statement referred to follows:)

*Appropriations and budget estimate*

| | |
|---|---|
| Appropriation, 1963 | $100,000 |
| Appropriation, 1964 | 100,000 |
| Budget estimate, 1965 | 100,000 |

*Analysis by activities*

| Activity | Fiscal year 1963, amount available | Fiscal year 1964, amount available | Fiscal year 1965, estimate |
|---|---|---|---|
| Planning the commemoration | $99,940 | $100,000 | $100,000 |
| Unobligated balance lapsing | 60 | | |
| Total | 100,000 | 100,000 | 100,000 |

### JUSTIFICATION

#### CIVIL WAR CENTENNIAL COMMISSION

The estimate of $100,000 for 1965 is the same as the 1964 appropriation.

The 1965 fiscal year will be the most critical and the most productive in the Commission's life, for it will witness the first major fruition of the Commission's program of historical publications.

1. The "Impact Series" will move from plan to reality. A number of the volumes in this series will be published during 1965. All others will be in the press.

This means that the Commission's staff (and some of its uncompensated members, as well) will be heavily engaged in reviewing and editing final drafts of the "Impact Series" typescripts, in verifying data and citations, and in clearing matters of content, form, and style with the authors and the publisher, Alfred A. Knopf, Inc.

2. At the same time the Commission expects to have in preparation a bibliography of Civil War books. Its purpose will be to guide the serious student to the massive Civil War literature already in print.

As this project is too large for the staff to undertake alone, the Commission plans to seek the help of rising scholars who will work on segments of the bibliography at their various universities in return for modest fees.

In addition to these two major publishing endeavors—the "Impact Series" and the bibliography—the Commission will continue its other activities. These include the preparation and distribution of its monthly newsletter, cooperation

with State and local centennial organizations, the awards program, and the campaign of urging State libraries and historical societies to collect and preserve Civil War documents hitherto reposing, unused, in private hands.

Although the projects and activities sketched above will command most of the Commission's attention—indeed, they will tax the energies of its small staff—public ceremonial events will by no means be neglected. The Commission expects to take part, in the spring of 1965, in selected commemorative ceremonies marking the centennial of the termination of the Civil War hostilities. In these cases the Commission will do all in its power to impart to the cermonies a tone of dignity and to emphasize the spirit of concord and national unity.

*Itemization of estimate*

| | Actual, 1963 | Available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $99,940 | $100,000 | $100,000 | |
| Unobligated balance | 60 | | | |
| Appropriation | 100,000 | 100,000 | 100,000 | |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 56,319 | 53,000 | 55,100 | +$2,100 |
| 12 Personnel benefits | 2,503 | 2,700 | 2,800 | +100 |
| 21 Travel and transportation of persons | 8,221 | 9,000 | 8,100 | −900 |
| 22 Transportation of things | 12 | | | |
| 23 Rent, communications, and utilities | 2,046 | 3,000 | 3,000 | |
| 24 Printing and reproduction | 14,753 | 15,000 | 15,000 | |
| 25 Other services | 15,540 | 16,300 | 15,000 | −1,300 |
| 26 Supplies and materials | 451 | 1,000 | 1,000 | |
| 31 Equipment | 5 | | | |
| Total obligations | 99,940 | 100,000 | 100,000 | |

ACCOMPLISHMENTS AND PLANS OF THE COMMISSION

Senator BIBLE. We will be glad to have your statement on your accomplishments during the past year, and the plans you may have for the coming fiscal year.

Mr. SCHWENGEL. First I want to say that I am speaking for Dr. Allan Nevins, who is chairman of our Commission, who lives in California, and who felt that his coming here today would be an unjustifiable expense, maybe, in view of the fact that others could testify for him.

I want to say, before the committee, and about him, that we are fortunate in having a man like this as chairman of this Commission. Rarely do we find a man so knowledgeable and so highly respected in the historical field of his time to serve in this way.

CONTRIBUTIONS AND APPRECIATION

I for one am indeed grateful, and I am sure the Members of Congress are, also.

And, of course, I speak also for the Commission. There are several Members of Congress on both sides of the aisle who are members of the Commission and who in various ways are making a very fine contribution to the Commission.

I want to express a word of appreciation to you, Senator, because I remind myself and you must be reminded that together we serve in different Houses on committees that deal with matters here in the District.

We have been wrestling with difficult problems, and I am thankful to have someone like you interested in this, because only as we have people who have a sympathetic interest can we find a solution to these problems. I am grateful for that.

I was hopeful that I could speak in the presence of a great man that I am sure all of you respect as we do, and have in the past—Mr. Hayden, who has been so encouraging in many ways as we dealt with things historical around here.

### U.S. Capitol Historical Society

I want to publicly commend the part he played in the creation of the U.S. Capitol Historical Society.

Senator Bible. We will convey those sentiments to him. He has been here every morning with the exception of this morning, but he had a conflict that he could not avoid.

Mr. Schwengel. I am interested in history, because I think I realize the truth of Sandburg's statement that wherever a people or a nation forget their hard beginnings, they are beginning to decay, and also because I realize that the more attention and consideration we give to the history of America, and the understanding we get therefrom, the surer we are of the virtues of our system.

And besides that, I think the more we reflect on this, the less likely we are to make mistakes in this very complex and difficult time in which we live.

### Congressional Interest in the Commission

In spite of the fact that the Commission has had some difficult times, we are coming out of them with a fine record, because first of all, there was a genuine and sympathetic interest in the Congress in what we are trying to do.

We have a fine Commission, dedicated people, and fine employees, of whom I have spoken before.

### Assistant Director of the Commission

There is one man, however, who has not appeared in the record, and over his objection I want to say something in behalf of him. His name is Ed Gass. He is the Assistant Director of this Commission. And in critical times and difficult times he has been very, very helpful.

He comes to us with 16 years of experience in Government. He is a former teacher of history. He has had fine training in some important colleges and universities, like the University of Tennessee and the University of North Carolina.

And he comes to us from the Interior Department, after having served on the Woodrow Wilson Commission, that has made a very fine contribution, the John Marshall Bicentennial Commission, and now as an Assistant Director of the Civil War Centennial Commission.

### Director of the Commission

Previously, I have spoken about the man who sits to my right before this committee. His name is Dr. James Robertson, one of the finest young historians in America, who already has made quite a

reputation for himself. We were indeed fortunate to be able to get him to serve as a Director of the Commission.

I have quite a long statement, which I will not go into in detail. It deals with his contribution and the other contributions to the Commission.

Senator BIBLE. It will be incorporated in full in the record.

(The statement referred to follows:)

ACTIVITIES OF THE CIVIL WAR CENTENNIAL COMMISSION

Again I state, it is a pleasure and a privilege to come before this committee in behalf of the Civil War Centennial Commission.

By commenting briefly on a few specific activities of the Civil War Centennial Commission, I believe I can give you useful information about the Commission in a few words.

First, there is the booklet, "The Civil War," published by the Commission last October. Copies of it are before you. This splendid little volume was written by Dr. Robertson, our executive director.

Because it was prepared primarily for the Nation's high school students, it meets a pressing need. I am confident that you are aware of this need; for years high school pupils and teachers have requested such a work. By the thousands their requests have come, not only to the Commission but also to other Federal agencies.

Now, at last, this vast need has been partially met. During the few months since the booklet came from the press, the Commission has mailed out nearly 100,000 copies of it, without charge—practically all of them in response to high school students' requests, which continue to pour in.

While this demand for the booklet has been immensely gratifying, it has also been overwhelming. It quickly became evident that we would not pay the costs of printing and mailing additional copies. We therefore turned the entire project over to the Superintendent of Documents, who sells the brochure for 25 cents per copy. That is a practical solution to the problem. Our only regret is that we were not able to mail copies without charge to all of the rural and smalltown high schools—the ones that most need it because they are not served by adequate libraries.

It seems to me that in preparing and publishing this student booklet, the Commission has rendered a valuable service, not only to the Nation's schools but to the Nation itself. And please bear in mind that "The Civil War" is but one of a number of highly informative booklets the Commission has prepared for the interested and intelligent layman, as distinguished from the professional scholar. Other titles, in our "layman's series" are listed in Dr. Nevins' statement.

But we are also producing two great works of scholarship, although both of them will serve the informed laystudent as well as the professional historian.

One of these scholarly works will comprise an entire series of volumes. This is the "Impact Series," about which we have previously testified. Each of its 15 volumes will carefully assess the impact of the Civil War on a major phase of American life, e.g., agriculture, business enterprise, science and technology, population, medicine and health, the arts, law, government. Each volume is underway. Each is being prepared by a man who is both a first-rate scholar and a competent writer. Let me remind you that authors' fees and publication costs will not fall on the Commission but will be borne by Alfred A. Knopf, Inc., although the project is a Commission project. Some of the Impact volumes are nearly ready for publication.

Our second scholarly work is a bibliography of books about the Civil War. This will not only list but will critically assess some 10,000 to 12,000 titles. This broad although selective listing, together with the succinct assessment of each title, will be a boon to all students of the war.

Each segment of the bibliography is being prepared by a scholar of demonstrated competence. The Commission will pay each of them a small fee—one so modest as to be little more than a token payment. We are seeking a publisher who is willing to assume the cost of printing the bibliography. If we do not find one, the Commission itself will have to bear that cost, although in that case we shall do everything in our power to keep that cost as low as possible.

From this point forward, the staff will devote nearly all of its energies to the "Impact Series" and the bibliography—assisting authors and compilers, helping them find needed materials, verifying data against original sources, reviewing drafts.

One observation is appropriate at this point. We are fortunate beyond measure in having the services of Dr. Nevins as Chairman and Dr. Robertson as Executive Director. Through their skills, their energy and their extraordinary talents, the Commission is making invaluable contributions to the study and the better understanding of a momentous segment of the Nation's history.

The Commission's remaining national assemblies will be held in Atlanta, Ga. (June 12 to 14, 1964), and in Springfield, Ill. (May 1965).

Finally, the Commission will take part in some major commemorative ceremonies. We expect the most notable of these to be ceremonies held during the spring of 1965, marking the termination of the war. Our aim in all cases will be to stress the theme of national unity. As our Chairman, Dr. Nevins, stated more than 2 years ago, we shall treat the end of hostilities "not as victory or defeat, but as a beginning—the beginning of a century of increasing concord, mutual understanding, and fraternal affection among all the sections and social groups of the Republic."

"THE CIVIL WAR" BOOKLET

Mr. SCHWENGEL. May I speak just briefly about the booklet, "The Civil War," which Dr. Robertson wrote for the Commission. Copies are before you and have been distributed already to a hundred thousand different people in the United States, including a great number of high school students.

He can tell you a little bit about that. I just want to say that it is a very successful venture; has been very well received, and with it we are getting across a very worthwhile and necessary story, and also a better understanding of what the Civil War was all about, and some of the good things that have come out of it.

THE IMPACT SERIES

In addition, the Commission thankfully, and largely because of Dr. Allan Nevins' leadership, is producing two great works of scholarship, and both will serve the informed lay student as well as the professional historian.

One of the scholarly works will comprise an entire series of volumes. This is called the inpact series, about which we have testified earlier. Each of its 15 volumes will carefully assess the impact of the Civil War on major phases of American life, such things as agriculture, business enterprise, science, technology, population, medicine, health, the arts, law, and government, and each volume is underway.

AUTHORS' FEES AND PUBLICATION COSTS

And let me remind you that the authors' fees—and this is very important to the committee to note, and I wish the public would appreciate it more—the authors' fees and publication costs will not fall on the Commission, but will be borne by Alfred A. Knopf, Inc., although the project is a Commission project.

And I think this is the first time something like this has happened in Government, and it is going to be a real contribution, a real monument to the efforts of the Commission, and all of us will be happy about that.

BIBLIOGRAPHY OF CIVIL WAR BOOKS

The Commission's other scholarly work is to be a bibliography of Civil War books. This I also think will be a great contribution.

These are my statements, and now I will yield to this gentleman.

Senator BIBLE. I appreciate your statement very much, Congressman Schwengel. We certainly know of your intense interest in this field, as well as your intense efforts for the District. I certainly commend you on this score.

### EXISTENCE OF THE COMMISSION

I think Dr. Robertson would be the responsive witness as to a few questions I would like to ask.

How many more years will this Commission remain in existence? Is this set by the statute?

Dr. ROBERTSON. Two more years, sir.

Senator BIBLE. That will be fiscal 1965 and fiscal 1966?

Dr. ROBERTSON. The last year being devoted to drafting of the final report.

### PERSONNEL

Senator BIBLE. And you are asking for the statutory amount of $100,000?

Dr. ROBERTSON. Yes, sir; absorbing our own salary increases and other expenses.

Senator BIBLE. How many people under personnel compensation do you employ?

Dr. ROBERTSON. We have five.

Senator BIBLE. There are five of you. Are you all historians? Or is that two historians?

Dr. ROBERTSON. Two historians and three staff members.

Senator BIBLE. What do the staff members do?

Dr. ROBERTSON. They are secretaries and administrative assistants.

Senator BIBLE. Then there is Mr. Gass and yourself, and three secretaries?

Dr. ROBERTSON. Yes.

Senator BIBLE. It is a five-member staff. Well, that is a modest staff.

And what will you be doing this year, starting July 1, 1964, for 1965?

### COMMEMORATIONS OF THE CENTENNIAL

Dr. ROBERTSON. We are working, in addition to the publications program which Congressman Schwengel has described, on the final commemorations of the centennial itself, the surrenders at Appomattox, at Durham Station, and in Texas.

### PROGRAM COMMEMORATING DEATH AND FUNERAL OF PRESIDENT LINCOLN

In addition, we also have a program commemorating the death of President Lincoln and his funeral procession to Springfield, Ill. They are to be public ceremonies.

And of course we will continue to assist the various State and local centennial committees in their respective work.

### NEVADA CENTENNIAL PROGRAM

Senator BIBLE. Has my own State of Nevada asked you for help in this field? This is its centennial year.

Dr. ROBERTSON. Yes; it is one of the States which has no centennial commission.

Senator BIBLE. Oh, yes.

Dr. ROBERTSON. A State centennial commission; not a Civil War Centennial Commission.

Senator BIBLE. That is right. They have a State centennial commission, because this year we are commemorating our 100th anniversary.

We have also looked upon Abraham Lincoln as the father of the State of Nevada, for various reasons, both because he needed some gold and silver we happened to have in our hills, and because he needed a little help on the 13th, 14th, and 15th amendments.

Interestingly enough, the 15th amendment was drafted by the first U.S. Senator from my State, William Morris Stewart.

So I would hope that they would get the benefit of your views and your suggestions in their commemoration of the 100th birthday. And I will ask them to get in touch with you.

I do not know whether you have material that can be helpful to them or not, but maybe you do.

### WEST VIRGINIA CENTENNIAL PROGRAM

Dr. ROBERTSON. We just finished helping West Virginia with its State centennial program last year.

Senator BIBLE. Yes. We are contemporaries, almost, in that field.

I want to commend you for the work you have been doing.

You will, then, have a wrap-up operation in the following fiscal year?

Dr. ROBERTSON. Yes, sir.

### FINAL REPORT

Senator BIBLE. How do you finalize this? What do you do? Do you come out with a final report?

Dr. ROBERTSON. Yes, sir; we will draft up everything that has been done since 1958, relative to the Civil War centennial.

Senator BIBLE. And that is a report?

Dr. ROBERTSON. A report to the Congress.

Senator BIBLE. That is called for by the statute, is it?

Dr. ROBERTSON. By the statute; yes, sir.

Senator BIBLE. Your written statement will appear at this point in the record.

(The statement referred to follows:)

### STATEMENT BY JAMES I. ROBERTSON, JR., EXECUTIVE DIRECTOR, CIVIL WAR CENTENNIAL COMMISSION

Since my colleagues, Dr. Nevins and Congressman Schwengel, have covered rather fully the historical activities of this Commission, I wish only to underscore some of the points which they have brought to your attention.

We of the Commission feel that we are now on the brink of this agency's most productive period. In addition to our student handbook of the Civil War—which has enjoyed a popularity unprecedented in the history of this Commission—we have made marked strides in our larger, more comprehensive publication programs. At present 15 of the Nation's outstanding scholars are laboring on as many volumes for our "Impact Series." The first of these studies, treating of the impact of the

Civil War on nonmilitary aspects of American life, is scheduled for publication early next year.

A few weeks ago we sent out to another 15 historians the basic materials and guides for the first comprehensive critical bibliography of Civil War titles. Our hope is to select 10,000 to 15,000 volumes, appraise each pointedly, and publish the whole with a thorough and cross-referenced index. Our plan, and our goal, is to carry this bibliography far beyond the physical makeup of such respected bibliographies as the "Harvard Guide to American History," published more than a decade ago. We feel this pending compilation will be one of paramount importance to a better study of American history.

As Executive Director of the Commission, let me add, too, that the Commission staff will assist and work closely with our 15 bibliographers and our 15 "Impact Series" authors. We will be a liaison for their concerted efforts, will provide research assistance and stenographic aid, and will strive to coordinate the internal workings of these two large undertakings. Without such a coordinating agency, neither could succeed.

We of the National Commission are proud of the fact that a sizable number of State and local Centennial committees have followed our example and undertaken scholarly studies of local communities and military units and their roles in the Civil War. The States of Ohio, Indiana, North Carolina, and Louisiana have made exceptional progress in these endeavors. They and other agencies, similar to theirs rely on the National Commission for counsel, suggestions, and nonmonetary assistance in such publications programs. Insofar as possible, we assist them to the fullest degree.

The Seventh National Assembly will be held June 10–12 of this year in Atlanta, Ga. At that time we will receive reports and recommendations on the various publications programs, as well as summaries of those Centennial commemorations yet to be held. The Eighth and final National Assembly will be held in May 1965, at Springfield, Ill., in conjunction with the centennial of the funeral of President Abraham Lincoln.

The U.S. Civil War Centennial Commission is deeply indebted to the Congress for its advice and assistance to date. In these final 2 years of the Centennial, we rely more heavily than ever on the continued support of the Congress in carrying our national—and, indirectly, the State and local—programs to fruition and success.

COOPERATION WITH THE STATE OF NEVADA

Senator BIBLE. Mr. Gass, did you have anything you would care to add?

Mr. GASS. No, sir; but we will certainly be happy to work with the people of your State and be of any assistance we can, especially if there is gold and silver still left out there.

Senator BIBLE. I wish there were more. They have rather exhausted that in these hundred years. But I will pass that message along.

I have nothing I care to add, unless you care to say something else.

Thank you very much, and I assure you I will read this pamphlet.

AVAILABILITY OF BOOKLET "THE CIVIL WAR"

That is obtainable for a cost of 25 cents?

Dr. ROBERTSON. From the Government Printing Office. We have some still left we could give to individual Senators free of charge.

Senator BIBLE. I am going to read this, because this is a fascinating part of our American history.

I will place Dr. Allan Nevins' statement in the record.

(The statement referred to follows:)

## STATEMENT BY ALLAN NEVINS, CHAIRMAN, CIVIL WAR CENTENNIAL COMMISSION

### WORK OF THE CIVIL WAR CENTENNIAL COMMISSION, 1963–64

The year 1863 was in important respects the most critical of the Civil War, and in 1963 the National Civil War Centennial Commission was busily occupied in assisting State and local agencies to commemorate many of the war's noteworthy events. In important ways, the Executive Director, Dr. James I. Robertson, and the Washington office, gave practical aid to the Mississippi and Pennsylvania organizations in commemorating Vicksburg and Gettysburg. Dr. Robertson spoke on both battlefields. The Commission also held its own ceremony in Washington to mark the centennial of Lincoln's Gettysburg Address and his third state of the Union message to Congress. Planned by the Chairman, Dr. Allan Nevins, this program brought five eminent men upon the platform of the Interior Department auditorium to deliver excerpts from essays they had prepared. They were Senator Paul Douglas, of Illinois; Mr. John Dos Passos, the novelist; Mr. Robert Lowell, the poet; Dr. Reinhold Niebuhr, the theologian; and Mr. Arthur L. Goodhart, long master of University College, Oxford, and expert upon Anglo-American law. The Commission plans to publish the five essays in book form.

In May 1963, the Commission held its annual national assembly in Boston. Members of numerous State centennial commissions, writers, university scholars, publishers, and others attended a highly successful series of panel discussions. Governor Endicott Peabody of Massachusetts was present to deliver a stirring dinner address. On the following day the Commission assisted at the ceremonies held at the St. Gaudens Monument to Robert Gould Shaw on Boston Common to marke the centenary of Colonel Shaw's death at Fort Wagner, and to honor the Negro regiment, the 54th Massachusetts, which he led. Mr. Bruce Catton of the National Commission and Governor Peabody spoke from the steps of the State House to a large audience.

The National Commission continued to throw its heaviest energies into the production of printed materials on the Civil War in two categories, brochures useful to schools and the general public, and scholarly works of permanent value to serious students of the conflict. In the first category its most important publication was a 64-page manual, "The Civil War," fully illustrated, treating 11 aspects of the upheaval, from causes of the struggle to the legacy of the war, in simple language for the particular benefit of young people. The demand soon exhausted printings of 100,000 copies, offered free of charge, and the Commission found it necessary to place further distribution in the hands of the Government Printing Office. The Commission continued to circulate earlier publications, including its pamphlets "Free Homesteads for All Americans: The Homestead Act of 1862," by Paul W. Gates; "The Origins of Land-Grant Colleges and State Universities," by Allan Nevins; "Our Women of the Sixties," by Sylvia G. L. Dannett and Katharine M. Jones; and "Emancipation Centennial, 1962: A Brief Anthology of the Preliminary Proclamation."

In its second category of publications, scholarly works of permanent value, the National Commission continued to press ahead with its 15-volume "Impact Series" planned and edited by Chairman Allan Nevins, which Alfred A. Knopf, Inc., is to publish without cost to the Commission. These volumes, of 100,000 to 140,000 words each, are being written by scholars of recognized standing as authors. They treat of the impact of the war upon agriculture North and South; upon medicine, public health, and nursing in both sections; upon science and invention; upon the development of industrial enterprise and organization; upon government, local and State as well as Federal and Confederate; upon education and culture; upon women; and upon other aspects of economic and social life. This series, the Commission is confident, will open up large and important aspects of the war hitherto neglected in favor of military and naval studies.

Meanwhile, the National Commission, despite limited resources, has carried forward its project for a comprehensive bibliography of books and pamphlets upon the sectional struggle 1860–65, a work badly needed by general readers and scholars alike. It has enlisted 15 scholars, each responsible for a single segment of the bibliography, who contribute their services for a mere token stipend. During the year 1964–65 the Commission expects to complete this selective list of perhaps 10,000 titles, with brief critical comment on each, and have it ready for publication. Throughout the past year the Commission has given all the aid and encouragement in its power to the Ulysses S. Grant Association, which

is preparing the complete writings of General and President Grant for publication by the Ohio State University Press, and the Jefferson Davis Association which is preparing for the full publication of Mr. Davis' correspondence, with the University of Texas as the intended publisher. To assist these two organizations in their important undertakings, the Chairman, Dr. Nevins, has traveled to Columbus, Ohio, and Houston, Tex. Both enterprises have received financial support from interested bodies, public and private, and both seem assured of successful completion.

Senator BIBLE. We will keep the record open for the purpose of allowing other Senators and Congressmen to file such statements as they care to file in support of this budget. It will be open until Friday of this week.

(The following statement by Representative Elliott was subsequently submitted:)

STATEMENT BY HON. CARL ELLIOTT, REPRESENTATIVE FROM THE STATE OF ALABAMA IN SUPPORT OF CIVIL WAR CENTENNIAL COMMISSION'S REQUEST FOR FUNDS FOR FISCAL YEAR 1965

Since my membership on the Civil War Centennial Commission began in 1963, I have made a careful study of its program. In my judgment that program is an excellent one.

For one thing, the National Commission works closely with the various State commissions that are commemorating the centennial. Specifically, I have in mind the record of splendid cooperation between the National Commission and the Alabama Civil War Centennial Commission, whose executive director is Dean A. B. Moore, of the University of Alabama. But this is no isolated case; the National Commission has worked in the same friendly and helpful way with the other 40-odd State commissions.

Another feature of the National Commission's program is its balance and variety. Let me list a few examples.

1. Through its monthly newsletter the Commission keeps a nationwide readership abreast of current and forthcoming centennial events of all kinds. This not only publicizes the important work of State and local organizations but encourages others to assist in it and to develop useful projects of their own;

2. The Commission sponsors some splendid public commemorative programs. These programs have been not only inspirational but have also included thoughtful addresses, original musical compositions and poetry;

3. Then there are the Commission's annual national assemblies. These meetings are attended by professional historians, high school teachers, archivists, members of State commissions, writers and publishers, and by representatives of civic and patriotic organizations. Those who attend are keenly interested in the Civil War and its centennial. At the assembly meetings these people engage not only in practical "shop talk" but also in stimulating panel discussions of Civil War history;

4. Finally, there is the Commission's publications program. From time to time the Commission prepares and distributes highly useful pamphlets or booklets that are written for the high school student or the adult layman. In addition, the Commission is sponsoring two scholarly projects—the "Impact Series" and the bibliography.

It seems to me that even when considered singly these are valuable and useful activities. But in combination their value is far greater than the simple aggregate of the separate parts. I am confident that the Commission is rendering a lasting service to the Nation.

That is why I hope that we will continue to have your support, as in the past.

## OFFICE OF SALINE WATER

## STATEMENTS OF CHARLES F. MacGOWAN, DIRECTOR; D. H. MILLER, CHIEF, DIVISION OF CONTRACTS AND ADMINISTRATION; J. W. O'MEARA, STAFF ASSISTANT; AND DALE L. ROTHROCK, FINANCE OFFICER

### 1965 BUDGET REQUEST

Senator BIBLE. Office of Saline Water, Mr. MacGowan. You bring up as many members of your staff as you desire.

Mr. MACGOWAN. I have with me Mr. O'Meara and Mr. Miller.

Senator BIBLE. We are happy to have you here.

The budget request for the Office of Saline Water for salaries and expenses in fiscal year 1965; $10,650,000. This is an increase of $650,000 over the amount appropriated in fiscal year 1964.

The justification for this request will be printed in the record at this point.

(The justification referred to follows:)

### HIGHLIGHT STATEMENT

The Saline Water Act of 1952, as last amended in 1961 (Public Law 87–295) authorizes a research and development and demonstration plant program to provide practical means for the economical production of water suitable for beneficial consumptive uses from sea, brackish, and other mineralized or chemically charged waters. This act authorizes $75 million to carry out its provisions during the fiscal years 1962–67, inclusive, and to finance such subsequent activities as may be required to correlate, coordinate, and round out the results of the studies of research undertaken. The primary purposes of the act are being accomplished by—

(*a*) Encouraging and promoting fundamental scientific research and basic studies;

(*b*) Conducting engineering research and technical development work in laboratory and pilot plant installations;

(*c*) Studies relating to the feasibility of proposed new demonstration or production plants in water-short areas;

(*d*) Determining the potentials for economic recovery of commercially valuable byproducts resulting from conversion of saline water;

(*e*) Sponsoring studies and surveys of areas and communities in the United States where water conversion processes are now or may soon become competitive with commercial water supply costs; and

(*f*) Assemble, maintain, and disseminate pertinent scientific literature and information; investigate promising new projects; and sponsor and participate in regional, national, and international conferences.

The basic research activities in the Office of Saline Water are concerned primarily with the exploration of new concepts, ideas and attainment of scientific knowledge, all of which may be applicable to any desalination process from its inception to its engineering development. The broad scope of the program encompasses the following areas:

I. Composition, structure, and properties of water and aqueous systems.
II. Kinetics, thermodynamics and transport phenomena.
III. Phase transitions including nucleation and crystal growth.
IV. Surface chemistry and physics.
V. Biological and organic systems.
VI. Materials.
VII. Economic studies.

Six branches were established in the Division of Research in order to competently handle the highly technical research involved. Those branches are responsible for investigations in the fields of inorganic chemistry, physical chemistry, physics and surface chemistry, organic and biological chemistry, materials and water supply economics. It is believed that the basic research being performed in these areas will enable the development of better methods of desalination. Nearly all present processes are thermodynamically inefficient and require more than thirty times the work energy needed for reversible separation. Present

processes have interfaces between phases, e.g. (liquid-vapor, liquid-solid, liquid-liquid) or employ semipermeable membranes with many boundary surfaces. Such processes involve mass transport and in general transport is the principal source of energy degradation. Basic research now underway can provide wider knowledge of both the transport processes and the thermodynamic losses thereby contributing to the discovery and development of new or improved processes.

Engineering research and technical development work is now underway under a number of contracts for the purpose of translating research data and results into laboratory bench-scale equipment, pilot units, and complete pilot plants. The Division of Processes Development (applied research) is staffed to perform and supervise engineering unit operations and processes applied to water conversion. It employs results and data obtained from basic research—it develops recommendations on processes that can be considered feasible in the construction of demonstration or production water conversion plants. Applied research activities are specifically directed toward lowering costs of conversion through the development of new processes or the improvement of existing processes with more efficient use of energy, reductions in equipment costs, reduction in operating costs or a combination of these. The specialized fields of operations within the Division are as follows: distillation processes, membrane processes, special projects, process analyses, and evaluations and heat transfer. The work of this Division has included the establishment and construction of a research and development test station at Wrightsville Beach, N.C.: It was completed in 1963. It provides a single location where testing, evaluation, and further development of various conversion processes can be conducted at a seacoast site where a constant supply of clean sea water is available. It is anticipated that 10 or more projects will be active at the center during 1965, at which time operation will begin under a field staff of saline water employees. It has been determined that operation of this station by Government employees will result in significant economies through improved supervision of contractor operations, more effective control over Government-owned property and consolidated purchasing of equipment and materials for pilot plant maintenance.

At the close of the fiscal year 1964 there will be in operation four demonstration plants originally authorized by Public Law 85-883, approved September 2, 1958, as follows:

| Location | Process | Design capacity (gallons per day) | Activated | Capital cost | Annual operating cost |
|---|---|---|---|---|---|
| Freeport, Tex | Long-tube, vertical, multiple-effect distillation. | 1,000,000 | June 21, 1961 | $1,372,662 | $400,000 |
| San Diego, Calif | Multistage flash distillation | [1] 1,000,000 | Mar. 10, 1962 | 1,771,529 | 465,000 |
| Webster, S. Dak | Electrodialysis | 250,000 | Oct. 20, 1961 | 535,800 | 125,000 |
| Roswell, N. Mex | Forced circulation vapor compression. | 1,000,000 | July 1, 1963 | 1,890,700 | 385,000 |

[1] Has been operated for short test periods at 1,400,000 gallons per day.

The highly successful demonstration plant operations to date have generated interest in the development of proposals for cooperative construction of water production plants in several water shortage areas. The budget estimates for 1965 provide funds with which to study, explore, and report on such future applications, including recommendations as to the processes, size, location and estimated costs of such proposed plants. In this connection, the Interior Department and the Office of Saline Water are working jointly with the Atomic Energy Commission with respect to the feasibility of using nuclear energy, and with the Department of Defense and other Federal agencies in connection with water supplies required to service military or naval installations. In addition there has been great interest displayed toward the potential use of water conversion knowledge as a useful tool in our diplomatic international relationships and in the industrial development of water-deficient foreign areas.

The Office of Saline Water is recognized in the United States and internationally as a focal point for assembly and distribution of scientific material and data involving desalination processes and progress of the research and development programs. In 1963 the Office of Saline Water was designated by the NATO Parliamentarians Conference as the central point for receipt and redistribution of technical data concerning desalination. Since that time it has developed

information and data for that organization as well as for the International Atomic Energy Agency. The department has been represented at two IAEA meetings by the Under Secretary of the Interior. Liaison has been established with the Department of State relating to a proposed international conference on water conversion problems. In its activities connected with the domestic problems concerning water deficient areas, the Office of Saline Water is developing current statistics and data on the costs of conventional water supplies.

In the fiscal year 1964 there was appropriated a total of $11,850,000, which included $10 million for basic and applied research and general administration of the program with $1,850,000 for coordination and operation and maintenance costs related to the water conversion demonstration plants. The estimate for 1965 is $12,950,000 consisting of $10,650,000 for research and development and $2,300,000 for operation and maintenance of four demonstration plants. This represents increases in the amounts appropriated of $650,000 for research and development and $450,000 for the operation of demonstration plants. An explanation of the amounts requested for each major activity with comparisons to the amounts available in 1964 appears on the following pages.

*Salaries and expenses*

| | |
|---|---|
| Appropriation, 1963 | $7,600,000 |
| Transfer to "Operating expenses, Public Buildings Service," General Services Administration | −43,000 |
| Unobligated balance brought forward | +77,176 |
| Total available, 1963 | 7,634,176 |
| Appropriation, 1964 | 10,000,000 |
| Unobligated balance brought forward | 1,353,052 |
| Total available, 1964 | 11,353,052 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | |
|---|---|
| To provide for increased pay costs for fiscal year 1964 positions | 13,000 |
| Net decrease in estimate for research program due to prior-year carryover | −716,052 |
| Net decrease, 1965 | −703,052 |
| Budget estimate, 1965 | 10,650,000 |

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 | | |
|---|---|---|---|---|
| | | Total appropriation | Unobligated balance, prior year | Amount available |
| 1. Administration and coordination | $533,165 | $690,000 | | $690,000 |
| 2. (a) Contracts and grants | 5,587,959 | 9,010,000 | +$1,353,052 | 10,363,052 |
| (b) Federal laboratories | 160,000 | 300,000 | | 300,000 |
| Unobligated balance forwarded | +1,353,052 | | | |
| Total | 7,634,176 | 10,000,000 | +1,353,052 | 11,353,052 |

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| 1. Administration and coordination | $533,165 | $690,000 | $820,000 | +$130,000 | +$13,000 | +$117,000 |
| 2. (a) Contracts and grants | 5,587,959 | [2] 10,363,052 | 9,630,000 | −733,052 | | −733,052 |
| Research | 2,593,014 | 5,317,500 | 5,080,000 | −237,500 | | −237,500 |
| Processes | 2,994,945 | 5,045,552 | 4,450,000 | −595,552 | | −595,552 |
| Feasibility studies | | | 100,000 | +100,000 | | +100,000 |
| (b) Federal laboratories | 160,000 | 300,000 | 200,000 | −100,000 | | −100,000 |
| Processes | 160,000 | 300,000 | 200,000 | −100,000 | | −100,000 |
| Unobligated balance forwarded | 1,353,052 | | | | | |
| Total | 7,634,176 | 11,353,052 | 10,650,000 | −703,052 | +13,000 | −716,052 |

[1] To provide for increased pay costs for fiscal year 1964 positions.
[2] Includes $1,353,052 unobligated balance brought forward.

## Research and Development Program

### SALARIES AND EXPENSES

(a) *Basic research, $5,080,000*

The objective of the Division of Research, Office of Saline Water, is to increase knowledge and understanding in scientific fields relevant to the recovery of pure water and valuable byproducts from saline waters. This Division is conducting exploratory research in support of the efforts of the Processes Development and Demonstration Plants Division. Further, it maintains liaison with the scientific community and other agencies to insure that significant advances in the improvement of water resources and the obtaining of minerals from saline water are integrated with Department of the Interior interests. The Office of Saline Water bibliography and reference services are carried out in the Division of Research.

The six branches of the Division, Inorganic Chemistry, Physical Chemistry, Organic and Biological Chemistry, Physics and Surface Chemistry, Materials, and Economics establish, evaluate, and administer programs in their respective fields to meet Office of Saline Water and Department of the Interior needs for scientific information and analysis of water and desalination problems. Support of projects by contract or grant is given in order to make available scientific knowledge generally applicable to any process of saline water conversion and, moreover, provide the basis for entirely new approaches for obtaining water of a quality suitable for municipal, industrial and agricultural uses from saline water.

The basic research program for 1965 is detailed in the next page and is a decrease of $237,500 below the amount available for 1964. The general areas are related to processes for the recovery of potable water, minerals, and byproducts.

*Basic research*

| | Available, fiscal year 1964 | Estimate, fiscal year 1965 |
|---|---|---|
| 1. Properties of water and solutions | $1,207,000 | $1,300,000 |
| 2. Separation processes | 2,100,000 | 1,780,000 |
| Vapor: Distillation, evaporation. Liquid: Reverse osmosis, electrodialysis, solvent extraction, controlled diffusion, membranes. Solid: Freezing, hydrates, ion exchange, adsorption. Biological systems. Energy sources. | | |
| 3. Interactions at boundaries of water systems | 760,000 | 800,000 |
| 4. Properties of salts, brine, and by products | 750,000 | 800,000 |
| 5. Economics | 500,000 | 400,000 |
| Total | 5,317,000 | 5,080,000 |

*Properties of water and solutions, $1,300,000.*—The Office of Saline Water is seeking a comprehensive theoretical understanding of water and its solutions. This includes investigations in the following areas relevant to the recovery of water: ions, aqueous systems, chelates, hydrates, crystalline and polymeric materials, and the chemistry and kinetics of water systems.

Although a large body of information is available on the properties of water and water solutions, its applicability and pertinence to desalination is surprisingly restricted. Much of the available data relate to relatively simple, dilute, two-component systems near room temperature. The need is for an understanding of concentrated multicomponent systems over a wide temperature range. The funds requested for 1965 will permit continuation and necessary expansion of these studies and additional effort to establish the intermolecular forces between water and other substances, the mechanism of salt transport in water, ice, and across membranes, and studies of ions and salt species in solutions.

*Separation processes, $1,780,000.*—There is good reason to believe that basic research can lead to the practical development of low-cost desalination processes, as nearly all of the present processes require more than 30 times the minimum theoretical energy for completely reversible separation. Research during fiscal years 1963 and 1964 dealt with the fundamental mechanisms and phenomena of separation processes. The objective of those studies was the improvement of known separation processes and the development of entirely new and novel methods for the desalination of sea, brackish, and minerally charged water. Progress has been made in defining and correcting deficiencies in existing systems and basic research has led to the discovery of an entirely new membrane separation process that is now in the pilot plant stage of development. The funds requested will provide only for continuation of a limited amount of the present program. It will include investigations of the kinetics of the hydrate process, transport across biological membranes, energy sources, and crystallization and properties of ice.

*Interactions at boundaries of water systems, $800,000.*—Existing desalination processes require quantities of energy far in excess of theoretical requirements. Those thermodynamic inefficiencies arise largely from the transport of energy or matter at surfaces or phase boundaries. The Division of Research is giving attention to the theory of the liquid state, and gas, liquid, and solid phase transitions. Special emphasis is being given to physical processes on surfaces and interfaces. The funds requested will allow continuation of those projects and limited additional investigations on the corrosion of materials in sea water at elevated temperatures, transport of water and salts across boundary layers, adsorption of salts, and removal of salts from solids by washing.

*Properties of salts, brine, and byproducts, $800,000.*—There are important opportunities for investigations leading to improved separation processes for minerals and byproducts from sea water and brackish water. Benefits can be obtained from research leading to the integration of saline water conversion with one or more of the following endeavors—mineral recovery, use of low temperature energy, power generation, and integration with existing water systems. Specific investigations now in progress involve the removal of specific elements from sea water by ion exchange resins, chemical removal of scale-forming elements, and recovery of fertilizer elements and other minerals from sea water. The funds requested will allow for additional effort in integrated system development to lower the cost of producing desalinated water and investigations of the recovery of potash and other minerals from sea water and brines.

*Economics, $400,000.*—The economic research program is designed to predict where in the United States, when, and to what extent, unlimited quantities of sea water and considerable reserves of brackish water can profitably be tapped to meet growing fresh water requirements through various desalination processes. Planned studies will include analyses of economic and other factors influencing the supply and demand of potable water in the coming decades. Studies now in progress involve the revision of the Office of Saline Water's "Standardized Procedure for Estimating Costs of Saline Water Conversion" originally published in 1956 and the development of procedures for determining the costs of developing naturally occurring water supplies. These procedures will result in the establishment of more accurate cost comparisons between desalinized and conventional water supplies.

(*b*) *Applied research, $4,650,000*

The Division of Processes Development is engaged in applied research activities, all of which are specifically directed toward lower costs in converting saline water to fresh water. This involves the development of new processes or the

improvement of processes with more efficient use of energy, reductions in equipment and operating costs, or a combination of these. For the same goal of lower conversion costs, the Division develops practical uses of scientific knowledge to produce devices, systems, materials, or processes. It translates research data and results into laboratory bench-scale equipment, pilot units, and complete pilot plants. Applied research and engineering development reduces to practice the ideas, concepts and scientific advances emerging from the laboratory; it bridges the gap between basic research and demonstration or commercial conversion plants; it serves to feed back problems requiring solution through fundamental research. The technical problems associated with operating conversion plants can often be solved more economically by use of smaller pilot plants or experimental units and equipment.

Advanced development information is used in several ways. First, it is applied to existing demonstration plants. Second, it provides basis for recommendations for the construction of plants to demonstrate new processes, for example, development information obtained previously was used in the design of present demonstration plants. Third, development results are applied to commercial equipment and activities, which is encouraged by means of publishing the results. The activities of the Division are carried out through five branches: distillation processes, membrane processes, special projects, engineering analyses and evaluations, and heat transfer. In addition, the Processes Development Division has responsibility for management and operation of the Research and Development Test Station, Wrightsville Beach, N.C. Five research and development contractors were in operation there at the beginning of fiscal year 1964. It is expected that during fiscal year 1965, 10 research and development projects will be underway there.

It is important to emphasize that different processes are needed for particular applications; i.e., a process developed for use on sea water at a coastal location would not necessarily be the lowest cost means of obtaining converted water from brackish water sources in an inland area. The wide difference in the composition of brackish waters means that one process can be more useful at a certain inland location than several others would be. The size of the plant is also an important factor.

The applied research and development program for 1965 is detailed in the following table and is a decrease of $696,000 below the level for 1964.

| | Available, fiscal year 1964 | Estimate, fiscal year 1965 |
|---|---|---|
| 1. Distillation processes: Multistage flash; vapor reheat multiflash and liquid-liquid heat exchange; thin film (includes vapor compression and multiple-effect applications); mobile and portable units; heat pump combination concentrator; heat recovery systems, compression cycles, and transfer media | $1,411,000 | $900,000 |
| 2. Freezing processes: Direct freezing flash; secondary refrigerant; new refrigerant evaluation; hydrate combination; new freezing and washing procedures | 657,000 | 650,000 |
| 3. Membrane and related processes: Electrodialysis; reverse osmosis; combination processes; ion migration; ion exchange and electrode processes | 578,000 | 950,000 |
| 4. Humidification processes: Solar stills; diffusion stills: humidification systems (solar heated, heat recovery cycles, etc.) | 188,000 | 400,000 |
| 5. Other processes: Hydrates; solvent extraction; pretreatment (descaling, ion exchange softening water conditioning); absorption | 1,436,000 | 750,000 |
| 6. Other applied research and development: Scale control; heat transfer; materials evaluations; byproducts; special equipment; brine disposal; data development and process cost studies and process analyses | 735,000 | 600,000 |
| 7. Pilot plants test facilities | 341,000 | 400,000 |
| Total | 5,346,000 | 4,650,000 |

*Distillation processes, $900,000.*—The fiscal year 1965 program contemplates continuation of pilot plant development for further improvement of distillation techniques. These include thin-film evaporation, new approaches to utilize vapor compression, vapor reheat, and liquid-liquid heat exchange systems. In addition, pilot plant and laboratory operations will study and evaluate other new systems of film evaporation, and evaluation of proposed improvements in multistage flash distillation. The possible advantages of combination multieffect and multistage flash distillation processes will also be investigated.

Work initiated in fiscal year 1964 on the feasibility of high capacity portable units may be implemented in cooperation with other agencies. Stimulation of

interest in small household units will also be maintained. A new project will be utilization of heat pump principles combined with scale control to make possible high concentrations of the waste brine streams. Laboratory work and evaluation studies of unit operations of various kinds will be conducted to make possible operations at elevated temperatures. New concepts, combinations of processes, and optimization of designs, including thermodynamic considerations, will also be investigated.

*Freezing processes, $650,000.*—Evaluation of a 15,000-gallon-per-day freezing process pilot plant designed to produce large-size ice crystals will be continued. Operation studies on a 200,000-gallon-per-day pilot plant will be initiated in an effort to establish the economics of the freezing process. Funds being requested will be applied to continue pilot studies and to perform additional laboratory work and unit operations relative to ice washing, separation techniques, ice particle distribution tests, evaluation of secondary refrigerants, studies of vapor compression systems, development of improved heat transfer methods, development of methods for removal of hydrocarbons from water and brines, and a study of new techniques of freezing and melting. Concentration of the research and development efforts on freezing processes is directed toward the obtaining of sufficient engineering and cost data to permit extrapolation to large plants. Thus, if the pilot plant and other studies now underway are successful, it is anticipated that recommendations can be made for demonstration of a freezing process on a large scale.

*Membrane and related processes, $950,000.*—Work will continue on electrodialysis, transport depletion, and reverse osmosis as processes most suitable to conversion of brackish waters. New membrane and cell designs will be tested and evaluated at the Bureau of Reclamation laboratory in Denver. The program will include further investigation of polarization effects, operation at various temperatures, possible reduction in the cost of membranes, operation on sea water as well as brackish waters, prevention of scale by the reversal of electrodes and the use of additives, the effect of water quality on unit operations and the need for pretreatment. Some new concepts in utilizing the principles of electrodialysis appear worthy of further investigation. Studies and investigations of combined advanced electrodialysis stack design with other conversion systems, such as distillation, are scheduled. Also, studies of possible combinations of power production with electrodialysis water conversion are planned. Practical experience through the operation of the electrodialysis demonstration plant has indicated possibilities of lower cost operations through design improvements; these will be evaluated as funds become available. Applied research on reverse osmosis, in view of recent developments in the process, will include additional studies on membranes, cell designs and water quality as they affect process performance. It is expected that operation of the small 1,000-gallon-per-day reverse osmosis pilot plant during 1964 will lead to expansion of the efforts to bring this new process closer to practical and economical use.

*Humidification processes, $400,000.*—These processes which formerly covered only solar distillation now include diffusion stills and other air-water distillation systems using heat recovery cycles, analogous to flash distillation. Based on the results obtained from the tests of a household diffusion still in fiscal year 1964, the merits of this design will be further explored. Based on the results of pilot plant and other applied research in fiscal year 1964, further test work will be conducted on humidification or air-water distillation systems designed for heat recovery and using either solar heat or other energy sources. Operation of a small pilot plant using solar heated saline water in combination with an air-humidification dehumidification system will be conducted to evaluate this approach to practical use of solar energy. Studies are planned toward improving the use of solar evaporation in solving problems of saline water disposal at inland conversion plants.

*Other processes, $750,000.*—Major processes not included in specific categories are hydrate formation, liquid-liquid extraction, absorption, etc. Hydrate processes have advanced to the pilot plant stage of development. The testing of a 20,000-gallon-per-day pilot plant using a cyclone-type wash separator will be continued. A second pilot plant of 10,000-gallon-per-day capacity using propane will be evaluated. The testing of a 2,000-gallon-per-day solvent extraction pilot unit will be continued. Also included are pretreatments of saline feed waters which involve conversion plant operations, and the descaling procedure which removes the scale-forming calcium and magnesium ions and utilizes these elements as byproducts for fertilizer production. The ion exchange softening procedure as a pretreatment to prevent scale formation will have undergone its first large-scale

operation in a demonstration plant in fiscal year 1964. Based on these results further applied research may be desirable.

*Other applied research and development, $600,000.*—Other applied research includes studies which do not necessarily constitute a complete process for removing salts from the saline waters but are vital to many process operations. These include scale prevention methods, heat transfer studies, waste brine disposal, byproduct recovery, dropwise condensation techniques, data development, materials evaluation, process analyses, and cost studies. It is expected that projects now underway in improving the techniques of engineering analysis and evaluation will be continued. In this way, it is anticipated that optimization of certain unit operations or phases of a conversion process can be more readily obtained. Applications of such techniques may make possible the reduction or elimination of certain pilot plant experimentation. Another area of technology being explored and which is expected to increase during fiscal year 1965 is the effect of pollution in saline water supplies on conversion plants; also the application of conversion processes to saline water in the categories of mineralized or chemically charged waters is of increasing interest.

*Pilot plants test facilities, $400,000.*—A research and development test station recently completed at Wrightsville Beach, N.C., commenced operations in fiscal year 1964. This station is located so that pilot plant testing, evaluation and further development of various conversion processes can be conducted at a sea coast site where a constant supply of clean sea water is available and which has the added advantage of concentrating these activities. In addition, a laboratory and other necessary facilities are available at the site for other research and development studies. The research and development test station is located on a portion of a 25-acre tract of property donated to the U.S. Government by the State of North Carolina. The station provides reinforced concrete slab areas for installation by research and development contractors of as many as 12 small experimental pilot plants or units plus the necessary utility services, maintenance, and administrative services. Such experimental pilot units or equipment are of a temporary nature and are used for the testing or developing of different processes or process improvements and to collect engineering data which will be applicable to demonstration or commercial conversion equipment or plants. Thus, when certain equipment is installed, it is used for a particular development project. When that project is completed, it may be modified, removed, or replaced with a new experimental project.

Following construction of the Wrightsville Beach Facility, the initial period of operation through fiscal year 1964 is being carried out under a management and operation contract. The estimates shown below are based on the actual costs for the first 8 months operation of the test station. These estimates indicate a definite cost advantage for Government operation in lieu of a management and operation contract. In addition to the cost advantages, other advantages relate to improved administration of the facility. A comparative cost estimate on an annual basis is as follows:

| | Contract operation | OSW operation |
|---|---|---|
| Personnel compensation | $118,000 | $125,000 |
| Overhead | 48,000 | |
| Personnel benefits | | 9,000 |
| Travel | 22,700 | 5,000 |
| Rent, communications, and utilities [1] | 82,300 | 80,000 |
| Printing and reproduction | | 1,000 |
| Other services | 1,500 | 1,500 |
| Supplies and materials | 30,400 | 35,000 |
| Land and structures | 25,000 | 25,000 |
| Fixed fee | 24,375 | |
| Total | 352,275 | 281,500 |
| Additional technical and supervisory personnel | 34,000 | 34,000 |
| Total costs | 386,275 | 315,500 |

[1] Includes fuel and lubricants for operation of steamplant and other utilities.

(c) *Engineering and feasibility studies, $100,000*

Public Law 87-295, approved September 22, 1961, directs the Secretary of the Interior to recommend to the Congress from time to time proposals for authorizations for additional demonstration plants for any process he determines as having great promise of accomplishing the purposes of the act.

The engineering feasibility studies are to implement this directive and are related primarily to the development of the program to develop the potential value of larger plants. Engineering work is required for the justification of construction of second-generation large-scale plants, increasing the size in two or more steps to 50-million-gallons-per-day plants. In addition, the freezing and hydrate processes may be ready by fiscal 1965 for demonstration plant programing, in the million-gallon-per-day or larger plant size. Studies related to brine disposal, energy sources and costs for specific site locations, and evaluation of construction methods not now used will also be undertaken as required.

(*d*) *Contracts and administration*

This Division centralizes the business management aspects of contracting and general administration. It has responsibility for financial and administrative phases of contract negotiation and financial activities in the Office of Saline Water. This includes advising other officials of the Office of Saline Water in the development of contractural and cooperative agreements and the administration of the nonengineering or nonscientific phases. Guidance, advice and recommendations are furnished as to policy interpretation on matters pertinent to contract formulation, contract analysis, contract supervision, and related phases of contract administration. The Division works closely with the departmental staff.

The Division is responsible for internal management functions of the Office of Saline Water, including personnel records, buduget and fiscal control, management reporting, office services, and audit functions relating to contracts. Improvement of accounting, auditing, property controls, and contract administration will be made possible with additional staff and it is anticipated that increased efficiency will result from better control over the steadily increasing amounts of Government-owned property in use at field stations and in the possession of research contractors.

(*e*) *Organization expense (administration and coordination), $820,000*

The estimate of $820,000 for 1965 is an increase of $130,000 over 1964 and includes $13,000 for increased pay costs. The amount requested provides for executive direction, planning, supervision, and administration of the research and development program.

Accomplishment of the desired program objectives and realization of the benefits to be obtained from water conversion research and development warrants an increase in the number of scientific, engineering, and supporting personnel. Several studies made of the Federal Government research and development contracting programs have emphasized the importance of adequate technical and administrative supervision of grantees and contractors. To accomplish this it is necessary to have a staff of well-qualified scientists and engineers who are able to (*a*) stimulate interest in the program, (*b*) evaluate research and development proposals, (*c*) assist in the planning and procedures of the research and development projects, (*d*) negotiate the technical portions of the contracts, and (*e*) administer the techniel work so that funds are expended prudently and so that worthwhile results are obtained to advance the objectives of the saline water conversion program. An important step in the supervision of contract research is on-site supervision of the organizations carrying out the work. This function of the program will be increased to insure proper performance and contract execution and determine that full value is received. In addition, the staff must evaluate results, including consideration of patent matters, and plan future work. Of equal importance, the scientific activities must be supported by capable financial, legal, and administrative staffs to insure that sound business management principles are applied.

In addition to its contracted research and development activity the Office of Saline Water conducts a number of related programs in scientific and technical fields. This includes the evaluation, assembly, and maintenance of important current scientific literature, the making of inspections of proposed water conversion projects, and fostering or sponsoring regional, national, and international conferences to encourage scientific participation in saline water conversion. It also has the responsibility to coordinate and correlate available information in advancing the development of low-cost conversion projects, as well as to cooperate with other governmental and private organizations interested in saline water conversion.

Of the additional 35 positions requested, 10 are to be assigned to the Washington, D.C., office and 25 to operation of the Wrightsville Beach, North Carolina Experimental Test Station. The need for the 25 positions at the experimental test station is discussed under (b) of this justification.

The additional positions to be located in the Washington, D.C., office will be assigned as follows:

| | Total | Basic research | Applied research | Contracts and administration |
|---|---|---|---|---|
| Scientific and technical | 3 | 2 | 1 | |
| Contract administration, accounting and budget | 3 | | | 3 |
| Stenographic and clerical support of technical staff | 4 | | 1 | 3 |
| Total | 10 | 2 | 2 | 6 |

The increase in the scientific and technical staff is necessary to handle the increase in research proposals, contracts, and grants. This includes the evaluation of proposals, selection of worthwhile projects, and the technical administration and supervision over contractors and grantees. The additional personnel in contract administration is needed to handle the additional work generated by the increased program including contract negotiation, examination of progress payments, and contractor audits. Additional emphasis will also be placed on improvement and standardization of contract terms and conditions. Personnel is needed to improve accounting control over demonstration plants, pilot plants, and other Government-owned property and to furnish adequate administrative and housekeeping services to the program staff. The work in this area has been increased by the gradual transfer of functions previously performed as a service by the Office of the Secretary but no longer available. This includes certain personnel service functions, accounting and budgeting operations, and property management.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $6,281,124 | $11,353,052 | $10,650,000 | −$703,052 |
| Unobligated balance brought forward | −77,176 | −1,353,052 | | +1,353,052 |
| Unobligated balance carried forward | +1,353,052 | | | |
| New obligational authority | 7,557,000 | 10,000,000 | 10,650,000 | +650,000 |
| Appropriation | 7,600,000 | 10,000,000 | 10,650,000 | +650,000 |
| Transfer to "Operating expenses, public building services," General Services Administration | −43,000 | | | |
| Adjusted appropriation | 7,557,000 | 10,000,000 | 10,650,000 | +650,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 393,283 | 517,000 | 767,000 | +250,000 |
| 12 Personnel benefits | 29,045 | 38,000 | 56,000 | +18,000 |
| 21 Travel and transportation of persons | 17,060 | 30,000 | 40,000 | +10,000 |
| 22 Transportation of things | 1,439 | 1,000 | 4,000 | +3,000 |
| 23 Rent, communications, and utilities | 22,886 | 23,000 | 63,000 | +40,000 |
| 24 Printing and reproduction | 22,782 | 28,000 | 31,000 | +3,000 |
| 25 Other services | 5,009,583 | 9,171,052 | 8,316,000 | −855,052 |
| Services of other agencies | 182,382 | 320,000 | 222,000 | −98,000 |
| 26 Supplies and materials | 6,312 | 10,000 | 96,000 | +86,000 |
| 31 Equipment | 6,998 | 5,000 | 5,000 | |
| 32 Lands and structures | 118,000 | 210,000 | 50,000 | −160,000 |
| 41 Grants, subsidies, and contributions | 471,354 | 1,000,000 | 1,000,000 | |
| Total obligations | 6,281,124 | 11,353,052 | 10,650,000 | −703,052 |

Senator BIBLE. Your statement will be incorporated in full and made a part of the record. I suggest that you highlight your statement in any manner that you want, Mr. MacGowan.

(The statement referred to follows:)

STATEMENT OF CHARLES F. MACGOWAN, DIRECTOR, OFFICE OF SALINE WATER

Mr. Chairman and members of the committee, it is a pleasure to again have the opportunity to appear before you and present the program budget of the Office of Saline Water for fiscal year 1965.

Before I present the explanation of the work we propose to undertake next year, I would like to briefly review the activities currently underway. I propose to do this for two reasons. First, because this committee has always expressed a deep interest in the saline water conversion program, and, second, because much of the work we are now doing will have a direct bearing on the activities we have programed for fiscal year 1965.

Following the enactment of Public Law 87–295 in 1961, the research and development activities of the Office of Saline Water were expanded and accelerated with heavy emphasis being placed on basic research. During the current fiscal year we have continued to emphasize fundamental research. We are convinced that this is essential if we are to develop truly low-cost methods of converting saline water to fresh.

To convert sea or brackish water to fresh is relatively simple, but to do it at low cost is extraordinarily difficult. The demonstration plant at San Diego, Calif., has produced fresh water in the range of $1 to $1.25 per 1,000 gallons. At this cost we are beginning to approach a competitive cost for fresh water in some areas of the country.

The committee is aware that we have transferred the San Diego plant to the Navy Department. The transfer is one of the steps being taken to alleviate the water shortage problem at Guantanamo Bay. The plant is now being dismantled and will be reassembled at the naval base. We are pleased that we could make our plant available to ease a grave emergency and thus contribute to the national security. We feel that this is a prime example of the many diversified benefits that may be derived from this program.

We should also like to report to the committee that we completed a preliminary study of the feasibility of utilizing a sea water conversion plant to provide municipal and industrial water for the Florida Keys.

The preliminary study revealed an apparent competitive advantage for a desalting plant combined with an electric powerplant. A detailed engineering and financial feasibility study has now been completed and, at the same time, the opportunity to use a nuclear reactor as the power source for the combination plant has been carefully considered.

As soon as our engineers complete their evaluation of the report and if other necessary details can be worked out, we expect to recommend to the Congress an authorization to participate in the construction of this water supply facility that will make fresh water from the ocean available at a cost less than can be obtained from natural sources of supply.

As a result of the transfer of the San Diego demonstration plant to the Navy, the following table has been prepared to revise the amount shown for operating costs of demonstration plants on page 3, and the amounts requested for operation and maintenance of existing demonstration plants on pages 22 to 27 of the justification.

*Operation and maintenance appropriation, revised estimate fiscal year 1965*

| | President's budget | Revised estimate | Reduction |
|---|---|---|---|
| Operation and maintenance: | | | |
| Freeport, Tex. | $400,000 | $400,000 | |
| San Diego, Calif. | 465,000 | 30,000 | $435,000 |
| Webster, S. Dak. | 125,000 | 125,000 | |
| Roswell, N. Mex. | 385,000 | 385,000 | |
| Subtotal | 1,375,000 | 940,000 | 435,000 |
| Minor process changes and improvements | 275,000 | 230,000 | 45,000 |
| Total | 1,650,000 | 1,170,000 | 480,000 |
| Major process improvements and changes: | | | |
| Freeport, Tex. | 130,000 | 130,000 | |
| San Diego, Calif. | 270,000 | | 270,000 |
| Administration | 250,000 | 250,000 | |
| Appropriation total | 2,300,000 | 1,550,000 | 750,000 |

While we are pleased with the progress we have made to date to lower the cost of conversion, we are not satisfied because we are convinced that better and more efficient processes can be developed. Before such processes can be developed we need to know more, much more, about the basic properties of solutions, transport phenomena, liquid-liquid transitions, nonbiological membranes, liquid-vapor transitions, ion exchange and electrochemical separation methods, biology, and liquid-liquid transitions. To obtain this type of information, our Division of Research currently has in effect over 55 contracts designed to develop a comprehensive theoretical understanding of water and its solutions. The Division is also supporting an active study of water economics.

The Division of Processes Development also has in effect over 35 contracts for the development of practical uses of scientific knowledge for application to the production of devices, systems, materials, or processes for converting saline water to fresh water.

During the year we completed construction of the world's only saline water research and development test station at Wrightsville Beach, N.C. The property for this station was donated to the Department of the Interior by the State of North Carolina. With this station in operation, we have a central location for testing and evaluating new processes that have reached the pilot plant level of development. We are equipped to provide the support facilities necessary for pilot plant operation, such as a sea water intake line, a steamplant, electricity, compressed air (for instruments), an overhead crane to facilitate erection, modification, and dismantling of pilot plants, a laboratory, machine shop, and office space for contractors. Four pilot plants are already operating at the station.

I would like to take this opportunity to invite the members of this committee to visit this facility. We are sure that a visit would give you a far better understanding of the work we are conducting there than any word description I am able to provide.

In April we expect to complete construction of a 200,000-gallon-per-day pilot plant which will utilize a new freezing process. Contracts have been awarded for four additional pilot plants which will be located at Wrightsville Beach. One will test a radically new liquid-liquid heat transfer system; two will utilize the new and promising hydrate conversion method of desalination; and one will operate to recover byproducts from sea water and at the same time provide a descaled sea water.

In addition to the work at Wrightsville Beach, the Division of Processes Development is operating a 45,000-gallon-per-day freezing process pilot plant at St. Petersburg, Fla. (This plant was erected before the Wrightsville Beach Test Station was constructed.) Small solar distillation test units are being evaluated at Daytona Beach, Fla., and through a cooperative agreement between the University of Arizona and the University of Sonora a solar distillation pilot plant has been erected and placed in operation at Puerto Penasco, Mexico. A contract has also been awarded for a small pilot plant which will use a new and very promising process called reverse osmosis. Electrodialysis pilot plants are being operated near Denver, Colo.

We have established a Division of Contracts and Administration to centralize and improve contract management and general administration. It has been assigned responsibility for the financial and administrative phase of contract negotiation and financial activities of the office as well as internal management functions including personnel records, budget and fiscal control, office services, and audit functions relating to contracts.

The Division of Demonstration Plants has completed and placed in operation our fourth demonstration plant. This plant, located at Roswell, N. Mex., uses a forced-circulation vapor-compression process to produce 1 million gallons of fresh water per day from very brackish well water. This is the fourth and final plant to be constructed under the authorization provided by Public Law 85–883. You will recall that the Demonstration Plant Act authorized the construction and operation of five such plants, but with the concurrence of this and other appropriate committees of the Congress, the fifth plant is being constructed as a pilot plant. It is the freezing process pilot plant I mentioned earlier that is under construction at Wrightsville Beach, N.C.

The Division of Demonstration Plants, with the assistance of personnel from other bureaus and agencies of the Department of the Interior conducted a preliminary feasibility study of a saline water conversion plant to supply fresh water to the lower Florida Keys. The preliminary appraisal report justified a more detailed engineering and financial feasibility study of a combination thermal-electric and sea water desalting plant to supply both electricity and fresh water

to the area. This study, which is just now being completed, will serve as the basis for a cooperative agreement for the construction and operation of a 10 million gallons per day sea water conversion plant. When we have completed our review, we may ask the Congress for authorization to participate in the construction of this plant as set forth in section 2(c) of Public Law 87-295. You will be interested to know that the studies conducted to date indicate that a 10 million gallons per day sea water conversion plant in the Florida Keys would produce fresh water in the range of 65 to 70 cents per thousand gallons. Our studies also reveal that the cost of water from a new pipeline to provide an equal volume of fresh water would cost about $1 to $1.05.

At the request of the Government of Mexico we examined the acute water supply situation at Tijuana, Mexico. Our participation will assist Mexican officials in reaching a decision as to the most economical method of providing additional fresh water for that water-destitute city, including the possibility of constructing a sea water conversion plant.

As a part of the Department's Pacific southwest water plan we completed an engineering study of a 150 million gallons per day sea water conversion plant. The extrapolations for this plant were based on presently available technology. Our study indicated that a plant of this size would produce fresh water in the range of 30 to 35 cents per thousand gallons.

To conclude this review of our current operations, I would like to give just one specific example of the progress we are making toward the attainment of our goal. The San Diego demonstration plant, which was placed in operation less than 2 years ago, utilized the latest available technological information in its design. Using a multistage flash distillation process, it was designed to operate at 190° F. and produce 1 million gallons of fresh water per day. The plant not only met its design characteristics, but by incorporating newly developed information we were able to increase the operating temperatures to 250° F. At this higher operating temperature, which was achieved with a slight increase in operating expenses (for increased pumping and higher temperature steam), with virtually no increase in capital investment we were operating this plant at 20 percent above its designed capacity on special test runs and actually produced 1,400,000 gallons of fresh water from this plant in a single day. We were planning some minor modifications to the plant which we believed would double its original capacity.

Time has permitted me only to touch on the highlights of the progress that has been achieved by the Office of Saline Water during the past year. The impact of the expanded program requested by President Kennedy, approved by the Congress and supported by this committee, is rapidly becoming more and more apparent.

Cities and communities throughout the United States are beginning to consider desalted water as a supplemental source of supply. Using technology developed through the saline water conversion program, the city of Buckeye, Ariz., has installed a 650,000 gallons-per-day conversion plant and now can provide its citizens, for the first time, water that will meet Public Health standards for good drinking water. Correspondence is increasing as is the number of visitors from many nations of the world who seek to obtain information on the latest developments as they search for ways to provide more water to meet ever growing demands. At least a dozen plants are now under construction in arid world locations.

Turning now to the budget request for fiscal year 1965, the estimate is $12,200,000 consisting of $10,650,000 for research and development and $1,550,000 for operating and maintenance for three demonstration plants. This represents an increase in the amount appropriated for fiscal year 1964 of $650,000 for research and development and a decrease of $300,000 for the operation of demonstration plants.

While the $10,650,000 requested for research and development represents an increase of $650,000 over the 1964 appropriation, because of an unobligated balance of $1,353,052 forwarded from fiscal year 1963, the funds requested for fiscal year 1965 will represent an actual decrease of $703,052. We do not anticipate a carryover of 1964 funds to fiscal year 1965.

The major expenditures planned for the funds are as follows:

*Administration and coordination, $820,000*

The estimate of $820,000 for 1965 is an increase of $130,000 over 1964 and includes $13,000 for increased pay costs. The amount requested provides for executive direction, planning, supervision, and administration of the research and development program. Several studies of the Federal Government research and development contracting programs have emphasized the importance of adequate

technical and administrative supervision of grantees and contractors. In order effectively to accomplish this supervision which now includes well over 100 contracts and grants, it is neceassry to have a staff of well-qualified scientists and engineers who are able to evaluate research and development proposals, assist in the planning and programing of the research and development projects, negotiate the technical portions of the contracts, and administer the technical work so that funds are expended prudently. In addition, the staff must evaluate results, including consideration of patent matters, and plan future work. Of equal importance, the scientific activities must be supported by capable financial, legal, and administrative staffs to insure the application of sound business management principles.

In addition to its contracted research and development activity, the Office of Saline Water conducts a number of related programs in scientific and technical fields. These include the evaluation, assembly, and maintenance of important current scientific literature, inspections of proposed water conversion projects, fostering, sponsoring, or participating in regional, national, and international conferences to encourage scientific participation in saline water conversion; publishing, coordinating and correlating available information to advance the development of low-cost conversion projects, and extending cooperation to other governmental and private organizations interested in saline water conversion.

The request covers 35 new positions, 10 of these will be assigned to the Washington, D.C., office and 25 to Wrightsville Beach, N.C., for the operation and maintenance of the research and development test station. The positions requested for the Washington office are necessary to handle the increase in research and development proposals, contracts, and grants, as well as additional staff in contract administration to handle personnel service functions, accounting, and budgeting operations and property management that were previously performed as a service by the Office of the Secretary. The staff increases requested, I can assure you, are minimum: Three scientific and technical, three contract and administration, and four stenographic and clerical for support of the technical staff.

*Basic research, $5,080,000*

The objective of the Division of Research is to increase knowledge and understanding in scientific fields relevant to the recovery of pure water and valuable byproducts from saline waters. This Division is conducting exploratory research in support of the efforts of the Processes Development and Demonstration Plants Divisions. It maintains liaison with the scientific community and other agencies to insure that significant advances in the improvement of water resources and obtaining of minerals from saline water are integrated with Department of the Interior interests.

The six Branches of the Division: Inorganic Chemistry, Physical Chemistry, Organic and Biological Chemistry, Physics and Surface Chemistry, Materials, and Economics establish, evaluate, and administer programs in their respective fields to provide scientific information on desalination problems.

The basic research program for 1965 is a decrease of $237,000 below the amount available for 1964 if we include the funds carried over. The program planned for fiscal year 1965, detailed in the justification, includes studies of the properties of water and solutions, separation processes, interactions at boundaries of water systems, properties of salts, brine, and byproducts, and economics.

*Applied research, $4,650,000*

The Division of Processes Development is engaged in applied research activities, all of which are specifically directed toward lower costs in converting saline water to fresh water. The Division develops practical uses of scientific knowledge to produce devices, systems, materials, or processes. The activities of the Division are carried out through five Branches: Distillation Processes, Membrane Processes, Special Projects, Engineering Analyses and Evaluations, and Heat Transfer. In addition the Processes Development Division has responsibility for management and operation of the Research and Development Test Station at Wrightsville Beach, N.C.

The management and operation of the test station is currently being carried out by contract. Our studies of the cost of operating the station clearly show a cost advantage for Government opertion in lieu of a management and operation contract. Because of the cost advantage as well as improved administration of the facility, we have 25 new positions for the operation and maintenance of the station. Even though 25 new positions are involved, we believe that better management at lower cost to the Government is good business.

DEMONSTRATION PLANTS

Public Law 85–883 authorized $10 million for the construction of large plants to demonstrate the reliability, engineering, and economic potentials of the most promising of the presently known processes, together with such additional funds as may be necessary for their maintenance and operation. The following plants have been constructed and placed in operation. They complete our construction authorization provided by Public Law 85–883.

| Location | Process | Design capacity, gallons per day | Activated | Capital cost |
|---|---|---|---|---|
| Freeport Tex | Long-tube, vertical, and multiple-effect distillation. | 1,000,000 | June 21, 1961 | $1,372,662 |
| San Diego, Calif.[1] | Multistage flash distillation | 1,000,000 | Mar. 10, 1962 | 1,771,529 |
| Webster, S. Dak | Electrodialysis | 250,000 | Oct. 20, 1961 | 535,800 |
| Roswell, N. Mex | Forced circulation, vapor, and compression | 1,000,000 | July 1, 1963 | 1,890,700 |

[1] Transferred to Navy Department, Feb. 1964.

The estimate for the demonstration plant program for fiscal year 1965 is $1,550,000, a decrease of $300,000 over fiscal year 1964. The estimate includes:

*Operation and maintenance, $1,170,000*

The estimate of $1,170,000 represents a decrease of $130,000 over the fiscal year 1964 level to cover the energy, operation, and maintenance charges of the three plants currently in operation and for usual process improvements and changes. This decrease represents the net of saving in normal operation of the San Diego plant of $360,000 and an increase amounting to $230,000 to cover minor process changes and improvements at two plants.

*Major process improvement and plant change, $130,000*

Major process improvement and plant change consists of an estimate of $130,000 and covers the installation of one liquid-to-liquid heat exchanger at the Freeport, Tex., plant. It is anticipated that operating costs will be reduced and productively increased after completion of this installation.

*Administration, $250,000*

The estimate of $250,000 is an increase of $25,000 over 1964. It includes $5,000 for increased pay costs. The estimate provides for the administration of the demonstration plant program which includes operating and determining the engineering potential of the four plants under operation and personnel required to supervise the architectural, engineering and construction work of much larger plants now under consideration. Two additional positions to those referred to earlier are requested in 1965 to handle work connected with feasibility studies on new plants, design changes, improvements and alterations to existing demonstration plants and to assist in the performance of the steadily increasing engineering workload.

We have endeavored to provide the committee with a complete statement of our present and proposed activities as well as our past achievements and further objectives. We welcome any questions members of the committee may have concerning the saline water conversion program. On behalf of the entire staff of the Office of Saline Water, I would like to conclude my remarks by thanking the members of this committee for the interest and support they have provided to nurture and foster the saline water conversion program. We hope the progress we have achieved in the past will merit your continued cooperation and support.

In conclusion I should like to remind the committee that President Johnson has said, "there is no newer or more vital frontier for any of us than the one we must cross to a lasting abundance of fresh water for all mankind." To this end we devote our total effort.

1964 REVIEW

Mr. MACGOWAN. Thank you, Mr. Chairman.

I would like to begin again by extending Secretary Holum's personal and official regrets that he could not be here. He very much planned on it, and looked forward to appearing before you.

It therefore is my pleasure to appear before you at this time, with our Senate statement for the current budget.

I would like to briefly review what has transpired in the last year, if I may.

PUBLIC LAW 87-295

This is in direct relationship to Public Law 87-295, which you so ably handled on the floor of the Senate, sir.

Senator BIBLE. I have always taken an interest in saline water, and so I will be very interested in your report.

Mr. MACGOWAN. The bill, as you recall, required, and gave us a mandate, we thought, to greatly accelerate the program, with very heavy emphasis upon the research aspects of saline water conversion.

DESALINATION PLANT MOVED TO GUANTANAMO

The research is going on apace, and one of the plants which was built and dedicated in 1961 is being transferred to Guantanamo in an effort to alleviate the critical water problem down there. The plant is at this moment under dismantling and will shortly be placed aboard ships to take it to Cuba.

Senator BIBLE. This was the desalination plant that was located at San Diego?

Mr. MACGOWAN. Yes, sir; this is the picture of it.

Senator BIBLE. What was the total cost of that plant?

ORIGINAL COST OF PLANT

Mr. MACGOWAN. The total original cost was approximately $1,770,000. Actually $1,800,000, if some modifications were involved.

Senator BIBLE. Thank you. We will keep this. Do you have extra prints of this?

Mr. MACGOWAN. Yes, sir; we do.

Senator BIBLE. Well, we will keep one of these for the use and reference of the committee.

First, where is this located?

PREVIOUS LOCATION OF PLANT

Mr. MACGOWAN. This is on Point Loma, just immediately outside San Diego proper. It is within the metropolitan area of San Diego, but it is out on the point which has the Cabrillo Monument.

Senator BIBLE. And it takes water from the Pacific Ocean?

Mr. MACGOWAN. From the Pacific.

Senator BIBLE. And this plant cost how much; did you say $1,800,000?

Mr. MACGOWAN. Yes, sir.

CAPACITY OF THE PLANT

Senator BIBLE. And what was its capacity?

Mr. MACGOWAN. This is an interesting thing. The design capacity of the plant at 190 degrees operation was 1 million gallons a day. Because of the rapid developments in the field, we were able to increase temperature to 250 degrees. And this, by the way, is not simply a matter of increasing the heat. At that rate of heat, the plant pro-

duced 1,400,000 gallons per day, almost 40 percent over design capacity.

Senator BIBLE. At what cost per thousand gallons?

Mr. MACGOWAN. We believe that at the higher figure, the 1,400,000-gallon figure, it was about a dollar or slightly under.

PROCESS USED BY THE PLANT

Senator BIBLE. And what process do you use?

Mr. MACGOWAN. This is multistage flash evaporation. It is a distillation process.

OTHER DESALINATION PLANTS

Senator BIBLE. And how many other desalination plants do you have? You have one on the Atlantic coast in North Carolina?

Mr. MACGOWAN. This is under construction.

Senator BIBLE. And you have one on the Gulf?

FREEPORT, TEX., PLANT

Mr. MACGOWAN. At Freeport, Tex.

Senator BIBLE. Is that operational?

Mr. MACGOWAN. Yes, it is; and I have here a picture of that.

Senator BIBLE. This may likewise be received and incorporated by reference for the information of the committee.

How large is this?

CAPACITY, COST, AND PROCESS OF THE PLANT

Mr. MACGOWAN. This is a million gallon plant also, sir.

Senator BIBLE. A million gallons, and was built at what cost?

Mr. MACGOWAN. At a cost of $1,372,000.

Senator BIBLE. And what process is used?

Mr. MACGOWAN. Long tube vertical, a distillation, falling film process. The seawater falls from above.

Senator BIBLE. And what is the cost per thousand gallons at the Freeport plant?

Mr. MACGOWAN. Approximately $1.25.

INLAND DESALINATION PLANTS

Senator BIBLE. Do you have two inland plants, as well?

Mr. MACGOWAN. Yes; sir; we do.

ROSWELL, N. MEX., PLANT

One dedicated last July at Roswell, N. Mex., and it again is a distillation process, a million gallons per day, operating on brackish water. The plant has undergone some extensive revisions, because the water for which it was designed was not available, and some redesign was necessary.

The city dug the well, and despite careful testing, we found that the water which was delivered was significantly different than the water for which the plant was designed.

Senator BIBLE. What type of process?

Mr. MACGOWAN. Vapor compression. The heat is added by the compression of the vapor in the compressor.

Senator BIBLE. And this was located at Roswell, N. Mex. It takes its water from where?

Mr. MACGOWAN. From wells.

Senator BIBLE. Oh, from underground wells?

Mr. MACGOWAN. Yes, sir.

Senator BIBLE. How deep do you go underground?

Mr. MACGOWAN. About 500 feet, if I am not mistaken.

Senator BIBLE. And you produce water there at what cost per thousand gallons?

Mr. MACGOWAN. We do not know, yet, but we think it will be in the $1 to $1.25 range, preferably shading toward the dollar side.

### WEBSTER, S. DAK., PLANT

Senator BIBLE. Now, there is another in South Dakota, isn't there?

Mr. MACGOWAN. Yes, sir, in Webster, S. Dak. And we unfortunately do not have a picture of it, but it uses a membrane process. That is 250,000 gallons per day.

Senator BIBLE. These others were million gallons?

Mr. MACGOWAN. Million gallons.

Senator BIBLE. This is one-fourth the size?

Mr. MACGOWAN. Yes, sir.

Senator BIBLE. And it has been operational for how long a period?

Mr. MACGOWAN. For nearly 3 years, and the results are excellent.

Senator BIBLE. And you are producing water there at what cost per thousand gallons?

Mr. MACGOWAN. Costs are approximately 80 cents to $1.

Senator BIBLE. And where do you get the water for that?

Mr. MACGOWAN. Again, wells.

Senator BIBLE. This is an underground operation?

Mr. MACGOWAN. Yes.

Senator BIBLE. Is it a different type of brackish water from the brackish water in New Mexico?

Mr. MACGOWAN. Very much different.

### DESIGN OF THE ROSWELL, N. MEX., PLANT

I perhaps should have been more specific when I discussed Roswell. The wells were carefully tapped, and several tests were made of various wells in the neighborhood, and we found that we were getting 25,000 part water, and so the plant was designed for this constituency. A well drilled right in the middle of it, however, developed 15,000 part water that was saturated with some of the scale forming elements that give the plant trouble.

### SALINE WATER ACT

Senator BIBLE. Now, as I recall the 1952 Saline Water Act, as amended in the 87th Congress, it was indicated that the act authorized an appropriation of $75 million between fiscal years 1962 and 1967. Including this estimate, how much of the authorization has been appropriated to you thus far? You are using about $10,650,000 this year?

Mr. MacGowan. $10 million this year, and approximately $10 million last year. It was $7 million the year before that. A total to date about $33 million.

Senator Bible. You have used about $33 million?

Mr. MacGowan. Including this.

Senator Bible. Including this, assuming you are granted this request. You have used $33 million, and you are authorized $75 million through 1967, so that you still have about $40 million left, or $42 million?

Mr. MacGowan. Approximately, yes, sir.

### Rate of Development of Desalination Program

Senator Bible. Now, is it contemplated that you are going to ask for that amount of money in the next 2 fiscal years?

Mr. MacGowan. I think I can safely say that the rate of development is such that unless the program is greatly augmented, I do not think so, sir. But on the other hand, our rate of development was such that we had predicted that we would approach that figure when we originally testified before the Senate.

The numbers which we utilize now, namely, the $10½ million that we are talking about for research and development this year, will probably be about the last step. There will be one step beyond this, in scaling up to size. However, it may be decided by the Congress, when we come back to them for larger plants, that they may wish to use some of this appropriation for such plants.

And so I am really giving you two answers, sir. One is that for research and development it seems doubtful that we would utilize the entire $75 million by 1967, unless it is decided by the House and the Senate to include the larger plants, which we will recommend.

Senator Bible. If I recall correctly—and I must confess my memory is a little hazy on it, the 87th Congress pretty much mandated you to limit your work to research, did it not?

Mr. MacGowan. Yes, sir.

### Building of Plants

Senator Bible. And not to build any more plants?

Mr. MacGowan. Right.

Senator Bible. You could not build another plant, if you wanted to, could you?

Mr. MacGowan. No, sir. Your memory is excellent.

Senator Bible. The five locations were set down in the 1958 act, is that it?

Mr. MacGowan. That is right. There were five plants. Now, with one transferred to the Navy, we will probably handle its replacement from the 1958 authorization, but the act to which you are now referring, sir, was—you are correct—research and development, and if any further new plants are to be built, we would need to come to Congress again for specific authorization.

Senator Bible. For specific authorization. I am happy to have that cleared up.

COMPENSATION FOR GUANTANAMO OPERATION

Does DOD compensate you for the cost of the Guantanamo operation?

Mr. MACGOWAN. Compensation is planned, yes, sir, and the discussions are underway at this time.

Senator BIBLE. And the money that you would receive from the transfer to Guantanamo would be used, I assume, in the building of another Pacific coast plant?

BUILDING ANOTHER PACIFIC COAST PLANT

Mr. MACGOWAN. We would hope to build another plant. This again, is contingent upon approval.

Senator BIBLE. Would you have to come back to Congress and get authorization for a saline water plant?

Mr. MACGOWAN. It would have to be with the consent of the committees.

Senator BIBLE. Because you already have the specific authorization in the basic act?

Mr. MACGOWAN. Yes, sir.

Senator BIBLE. There is an item that I read with interest in your prepared statement, and that is that knowledge of water conversion would be a useful tool in diplomatic international relationships.

USE OF WATER CONSERVATION IN DIPLOMACY

Would you care to comment on that? How is this a useful tool in diplomatic international relationships?

Mr. MACGOWAN. I think President Johnson has mentioned this. We have been for years in open and friendly negotiation and discussions with Israel, and many other countries, including Arabia, England, Canada, and Australia. Most of these are through the State Department. As a matter of fact, the Office of Saline Water has been designated by the NATO parliamentarians as the clearinghouse for all information regarding water conversion throughout the free world; that is, the part that impinges on the NATO nations.

We were invited to the Athens Conference, and we did indeed meet with the Greeks. The Under Secretary had planned a trip to Greece, except that he was stricken ill this year. There are many other illustrations.

Senator BIBLE. I think that suffices for the record.

LARGER SALINE WATER PLANTS

Tell me, in answer to one of my earlier questions, you said: "We will be coming back to the Congress for authorization for the construction of larger saline water plants."

Mr. MACGOWAN. Yes, sir.

Senator BIBLE. Could you comment and develop that a little?

Mr. MACGOWAN. I will be pleased to.

Public Law 87-295 clearly says that the Secretary may recommend from time to time for construction such plants as he thinks would be necessary, based upon the research and development done under the act.

Section 2(c) of the bill refers specifically to this item, and it makes it quite clear that no plants may be built except with the express authorization of the House and Senate committees.

STUDY COMPLETED

Now, one of the important things in developing low-cost water is to increase the size of the plants. A study which we have just done, and which has been reinforced by a consulting engineer indicates that there are places in the United States, such as Key West, where converted water may be competitive with natural resources.

Senator BIBLE. At what cost would that be? Would it be 25 or 30 cents?

Mr. MACGOWAN. No, sir. The 10 million size would be about double that, 50 or 60 cents, perhaps incrementally higher, but not much. We think under 70 cents.

Senator BIBLE. Is that competitive?

Mr. MACGOWAN. Yes, sir.

Senator BIBLE. Competitive in that area?

Mr. MACGOWAN. In that area.

KEY WEST, FLA., AREA

Senator BIBLE. Because of their high cost of producing. Where do they get water now?

Mr. MACGOWAN. For Key West it arises on the mainland, brought down on a pipeline 130 miles long. So obviously there is a competitive advantage, and if this plant goes forward, and if agreement with the local people is achieved, we would present to the Congress the plans for such a plant, together with that part that the Department feels it would be to its benefit to contribute to the plant, if any.

The bill further makes it clear, I am sure you remember, Senator, that no such plant may be supported to in excess of 50 percent of the total cost.

Senator BIBLE. You say this is projected as a 10-million-gallon plant?

Mr. MACGOWAN. Yes, sir.

Senator BIBLE. And you hope to reach a production cost of somewhere in the range of 50 cents per thousand gallons?

Mr. MACGOWAN. 50 to 70 cents would be the range.

ATTAINABLE GOALS IN LOW RATES FOR DESALINATION

Senator BIBLE. To date are you in position to forecast the lowest cost that you can achieve in saline water plants?

Mr. MACGOWAN. I think with confidence we can state that larger plants and perhaps using nuclear heat, 30 to 35 cents is an attainable goal.

As a matter of fact, for the Pacific Southwest water plan, we assisted in the conceptual design of a 150-million-gallon-per-day plant.

Senator BIBLE. I think I will take this, because I think the chairman of this committee will be interested. He has shown quite a bit of interest.

ONE HUNDRED AND FIFTY-MILLION-GALLON SEAWATER CONVERSION PLANT

This is a conception of 150 million gallons per day, a seawater conversion plant?

Mr. MACGOWAN. This was deleted in the most recent study. This is the basis of a plan which is in the appendix to the southwest water plan.

Senator BIBLE. How much would a 150-million-gallon-per-day seawater conversion plant cost?

Mr. MACGOWAN. Unfortunately, we are guessing, but we are guessing it is under $100 million.

Senator BIBLE. And you are also projecting, based upon the research that you have done to date, and the development that you have had in these other plants, that you would produce water from the Pacific Ocean at a cost somewhere in the range of 35 cents to 45 cents?

Mr. MACGOWAN. Perhaps; per thousand gallons. This is our best estimate at this point.

Senator BIBLE. And what you are saying is that even with the research, you actually do not know what a smaller plant will do until you get the big plant? Is this correct?

Mr. MACGOWAN. Precisely correct. And this is the reason why I am hedging, because we think there are steps to be made in this. With each step, we can predict the next one, and predict with much more sanguinity and confidence.

PROCESSES UNDER CONSIDERATION

Senator BIBLE. As I recall, at one time there were three or four or five different processes under consideration. Have you arrived at the process now that you think is the best and the most economical?

Mr. MACGOWAN. At this time we think multistage flash is, and this plant epitomizes that.

Senator BIBLE. Have you pretty much eliminated the membrane processes?

Mr. MACGOWAN. No, sir, we have not, but we know much more about the multistage flash, and our confidence, therefore, is much greater in things that we are more familiar with than with the membranes.

But we are continuing to develop membranes as quickly as we possibly can.

ISRAEL AND THE ZARKIN METHOD

Senator BIBLE. Tell me what other countries in the world do in the field of sea water conversion plants. I know we are always pointing to Israel and the work they are doing there. What is the largest plant they have there?

Mr. MACGOWAN. Israel at this point is beginning a quarter-million-gallon freezing process, utilizing the Zarkin method. I think you have some familiarity with this.

Senator BIBLE. Yes, I do.

Mr. MACGOWAN. And this plant was shipped from Beloit, Wis. It arrived on the scene, and at this time, my information was, last week, that the first unit has begun a pilot run.

Senator BIBLE. This is a quarter of a million plant?

Mr. MACGOWAN. A quarter of a million—freezing.

Senator BIBLE. It is one-fifth the size, I guess, of the San Diego plant. Is that correct?

Mr. MACGOWAN. Yes. And approximately the size of the freezing plant which we are building in North Carolina.

Senator BIBLE. I see.

ONE-MILLION-GALLON SEAWATER CONVERSION PLANT ON ORDER

Mr. MACGOWAN. The Israelis also have on order in this country a 1-million-gallon-per-day distillation plant. It is being built by Baldwin-Lima-Hamilton, and is ready for shipment, if not shipped now.

This plant will be built in conjunction with a power generator, and they expect some relatively low costs from it.

Likewise, the Israelis are working very hard on membranes and are very sophisticated in this.

Senator BIBLE. Do they have any desalination plants in operation?

Mr. MACGOWAN. I think there is a membrane plant in operation.

Senator BIBLE. Do you have a price tag on that?

Mr. MACGOWAN. No, sir.

Senator BIBLE. Do you know what they are able to produce water for, per thousand gallons a day?

DETERMINING COST OF DESALTING WATER

Mr. MACGOWAN. Mr. O'Meara reminds me that the cost of desalting brackish water relates directly to the kind of water used, because of the wide range, and the difficulty that we have in relating costs there to costs here is that we would have to get in exactly identical water and put it in their machine in order to get identical costs.

Senator BIBLE. So you have really no sound basis of comparison?

Mr. MACGOWAN. No, sir.

Senator BIBLE. What other countries have desalination plants?

SHEIKDOM OF KUWAIT

Mr. MACGOWAN. The Sheikdom of Kuwait. Then there is the island of Aruba.

Senator BIBLE. Well, Kuwait has done what? Have they got an operational plant?

Mr. MACGOWAN. Yes; they have, and it is about 3 million gallons per day, made up of segments. I do not mean that they have one 1-million-gallon-per-day plant. They have segments which total a capacity of about 3 million gallons per day.

Senator BIBLE. Is that brackish water?

Mr. MACGOWAN. That is seawater.

Senator BIBLE. Do you know what they produce at?

Mr. MACGOWAN. They say $1.70. This is our last information.

Senator BIBLE. Per thousand gallons?

Mr. MACGOWAN. Yes, sir.

ISLAND OF ARUBA

Senator BIBLE. And how about Aruba? What is the experience in Aruba?

Mr. MACGOWAN. Aruba is very good. They also have a capacity slightly in excess of 3 million gallons per day, again, incremental plants totaling 3 million gallons. Their costs—it is very difficult to get these costs, Senator, in terms in which we can utilize them, but again our best guess is that this is about $1.75 per thousand gallons.

Senator BIBLE. Are there any other countries in the world which have operational desalination plants?

### THE VIRGIN ISLANDS

Mr. MACGOWAN. The Virgin Islands. This is a relatively small plant, under 300,000 gallons per day.

Senator BIBLE. Yes. I think we heard testimony on that earlier, where the Virgin Islands government is attempting to take over this plant. Is this not correct? But is is a fairly high cost production, I think, is it not?

Mr. MACGOWAN. Their costs are under $2, and this compares favorably with the cost of barging water in, which is their only alternative.

Senator BIBLE. Do you have any reading at all on any of the countries behind the Iron Curtain, Russia included?

### COUNTRIES BEHIND THE IRON CURTAIN

Mr. MACGOWAN. No, sir. We know that Russia was active in it, that Russia did display a knowledge of a membrane process, that it attempted, I understand, on a ship in the Black Sea. But the results of this are indefinite.

There is a study group requested by the Soviet Union, an interchange of technical people from the Soviets with the U.S. people. We have had correspondence with the Soviets to no definite conclusion.

Senator BIBLE. If I understand your testimony correctly, then, apparently the United States is the leader in the desalination world.

Mr. MACGOWAN. This is definite, sir.

Senator BIBLE. Both as to the number of plants and as to breaking the barriers of economics and making them more feasible.

Now let me just ask a few questions as to your budget.

### ADMINISTRATIVE EXPENSE INCREASE

Your estimate of need for limitation of administrative expense is increased by $130,000 over the fiscal year 1964 authorization. This will give you $820,000 during fiscal year 1965.

Would you please explain to the committee the need for this increase?

Mr. MACGOWAN. It is almost entirely in manpower, sir.

The Office of Saline Water has—and I do not mean in any way to be disrespectful to another group at this time, but the Office of Saline Water is exactly the same size in terms of people as the heraldic branch of the U.S. Army.

Senator BIBLE. Which branch of the U.S. Army?

Mr. MACGOWAN. The heraldic branch, the art group.

Senator BIBLE. The art group. I see.

Mr. MACGOWAN. And with 61 people on board as of this moment it is required that we administer judiciously and correctly the $10½

million that we have had up to this point, $11 million including the carryover.

We think we need at least 10 more people, sir, for this, most of which would be in the supporting area of contracts and administration.

Senator BIBLE. Those are 10 that you would use here in the Washington office?

Mr. MACGOWAN. Yes, sir.

WRIGHTSVILLE BEACH, N.C., FACILITY

Senator BIBLE. Now, I note here that you are asking for 35 positions, and the additional 25, as I understand it, would be assigned to Wrightsville Beach.

Mr. MACGOWAN. Correct.

Senator BIBLE. What would be the need of the 25? What will they do at Wrightsville Beach?

Mr. MACGOWAN. This is the Wrightsville Beach test facility.

Senator BIBLE. This is the North Carolina facility?

Mr. MACGOWAN. Yes, sir; this is our test facility, not to be confused with the demonstration plant. This is the facility in which we test the pilot plants only, meaning plants of the 10,000- to 15,000-gallon-per-day size.

At this time, at this point, there are five such plants there.

Senator BIBLE. In the 10,000- to 15,000-gallon size?

Mr. MACGOWAN. Yes, sir; the largest of which is 30,000 gallons.

Senator BIBLE. You use this as a test area?

Mr. MACGOWAN. This is our test area.

Senator BIBLE. In addition to that, you have a demonstration plant?

Mr. MACGOWAN. Yes, sir; which is immediately to the top.

Senator BIBLE. Your demonstration plant is at the top of that picture?

Mr. MACGOWAN. Yes, sir.

Senator BIBLE. Again, what do you use the additional 25 men for here?

KOPPERS CO. OPERATING THE FACILITY

Mr. MACGOWAN. This plant at the moment is maintained and operated by the Koppers Co. The Koppers Co. is doing this as a favor to us, quite frankly, because this is not their normal business.

We have asked GSA to operate this plant for us, and they have rejected us. We have checked local and other international contractors and have determined that to have a contractor operate this plant will result in a cost to the Government of about $50,000 per year more than we can operate it for ourselves.

These 25 people about which we are speaking here are entirely those people that would be required to operate and maintain the Wrightsville Beach Test Facility, including guards, boiler firemen, maintenance people, and supervision.

BREAKTHROUGH IN DESALINATION

Senator BIBLE. Tell me this: Is the $10,650,000 budget which you are requesting this year, and which your are now justifying—is that a sufficient budget to make the earliest possible breakthrough in this field of desalination?

Mr. MACGOWAN. I think my best approach to an answer to that, sir: This is the program which we can sustain at this time because as Solicitor Barry said earlier, it is not just a question of having money. It is a question of getting interested and capable researchers to do the work.

We have been able to attract the better people, we think, in the country, perhaps in the world, to the program, to get them to do the work, but making more money available would not bring more people from the outside to do the work.

At this moment, sir, this looks like the program which we can support and can justify in terms of good fiscal and technical progress.

Senator BIBLE. Well, I was not suggesting that we give you more money, if you could not adequately spend it and make a real showing on it.

Mr. MACGOWAN. I am sure of that.

Senator BIBLE. I have had a great interest in this program, and I have always felt it could be hurried along a bit more.

I would take your answer to indicate that you are going at just about the level which you think you can adequately absorb at the present time, and do an effective job.

### CRASH PROGRAM

Mr. MACGOWAN. That is right, sir.

I would like to point out that this is not today a crash program.

Senator BIBLE. I understand it is not a crash program. Is there anything to be gained by making it a crash program, in view of the fact that we have so many areas in this country where water is in short supply?

I can go to my own State, southern Nevada, where they are simply running out of water. Thank goodness, we have an allotment coming from Lake Mead, but it will not be long before we run out of that.

In many areas of the country, there is an acutely short supply now. Are we going to be geared up to meet that shortage, which is going to happen inevitably, I think, within the next 5 or 10 years?

Mr. MACGOWAN. We are trying very hard to prepare for that, sir.

As you have correctly stated, we do not think that we are the alpha and omega of solving water shortages, but where brackish water or sea water is a potential resource, we think we are prepared, or will be prepared, as the need develops, to assist in the solution of the problem.

What I mean by that is: There are other means of getting water. For instance, the California plan, bringing water 700 miles.

Senator BIBLE. From the north.

Mr. MACGOWAN. And I think it is purely a matter of technique, technology, and economics, as to whether you import water or convert it.

### BUCKEYE, ARIZ., CONVERSION PLANT

When a conversion is decided upon—Buckeye, Ariz., I think, is a good illustration of this, where the city of Buckeye bought and entirely supports a conversion plant. Buckeye, Ariz., has met the problem of brackish water by simply building its own plant. But this

technology has been supported by the OSW, and it was because the OSW was alive that Buckeye was able to do this.

We do not think we have the answers. We think that we have a very good answer in the very near future, and we are crossing our fingers on reversed osmosis. But it is moving, and we think well, sir.

### Sea Water Conversion Plant of 150 Million Gallons

Senator Bible. Just one or two final questions, and maybe you testified to this earlier, and I missed the answer. When will your technology and your research be to the point where you are able to "greenlight" this 150-million-gallon-per-day desalination plant?

Mr. MacGowan. We have talked of this plant, sir, in 7 to 10 years.

Senator Bible. You do not feel that you would be prepared to build it short of 7 to 10 years. Do you have much more research and technology to do?

Mr. MacGowan. The principal thing is to begin with incremental plants, a small one growing to a larger plant. And if we got to the 10-, 25-, or 50-million-gallon size, sir, we would predict with confidence the 150-million-gallon plant.

Senator Bible. Now, will you repeat that? I got to woolgathering. Will you repeat your answer?

### Incrementally Increasing Sizes of Plants

Mr. MacGowan. Your question as to the 150 million gallon plants would be predicated upon incrementally increasing our size. We may suggest Key West as a 10 million gallon per day plant. Following this, there may be a 25 million per day plant available somewhere, and perhaps following that a 50 million gallon per day plant.

At this point, at the 50 million gallon size, we would be quite sanguine about the facts of the 150 million gallon size.

Senator Bible. But you have to get almost up to the 150-million-gallon size before you can be fairly accurate as to what the 150 million gallon will do?

Mr. MacGowan. I have chosen these numbers only for reference, sir. It could range from 25 to 50. It may be 35 million gallons. But this is the size range that we would like to be in before we can do it.

Now, there are alternatives, as I mentioned just briefly before—a crash program, where we could be a little less careful about costs, meaning this in the general sense, meaning that we would not have to know precisely what it was, but we would know where we were going.

We could do it, I think, in 7 years.

### Research and Study Required

Senator Bible. I want to do a little more research and study on this.

As I was suggesting to Mr. MacGowan, Mr. Chairman, we are in short water supply out in the Southwest, as you and I know all too well, and the sooner we can make some breakthrough in large gallonage conversion plants, the better off we will be in solving many of our problems.

And Mr. MacGowan has given us an encouraging outlook on it, though if I understand them correctly, at their present level, it is going to take them 5 to 8 or 9 to 10 years to get to a point where they will be able to say for how much they can produce water from a plant this size.

Mr. MACGOWAN. We think we can say with confidence that it would be in the range which I gave you, sir.

Senator BIBLE. Between 35 and 50 cents?

Mr. MACGOWAN. Thirty-five cents or less.

Senator BIBLE. But you will not know, though, until you have a big plant and try it?

Mr. MACGOWAN. Right. We have got to have a range, sir.

### COST PER ACRE-FOOT

Chairman HAYDEN. Could they put that in acre-feet?

Mr. MACGOWAN. One million gallons are 3 acre-feet, sir, so that would be approximately 500 acre-feet.

Chairman HAYDEN. And how much per acre-foot?

Mr. O'MEARA. $102 an acre-foot.

Senator BIBLE. Your statement is that it would be somewhere in the neighborhood of 35 cents. He is going to translate that into acre-feet, assuming this plant will do what they think it will do. They do not know yet.

Chairman HAYDEN. What is the lowest cost per acre-foot that water has been produced up to now for any plant?

Mr. MACGOWAN. Over a hundred an acre-foot, sir. If my mathematics are correct——

Senator BIBLE. You can reverify those figures, because you have been using it in thousand gallons per day.

Mr. O'MEARA. A dollar a thousand gallons, of course, is $326 per acre-foot.

Mr. MACGOWAN. It is about $300 an acre-foot now, sir, and it would be reduced by large plants to about $100 per acre-foot.

Chairman HAYDEN. That is about 10 times as much as some figures that I have seen. I thought it was down to $30 to $50 an acre-foot now.

Mr. MACGOWAN. No, sir.

Senator BIBLE. I think the figure he uses is 30 to 50 cents per thousand gallons per day, which is the most optimistic guess they can get, even if this plant will work, and they do not know that it will work yet.

### ACRE-FEET IS USED AS MEASUREMENT IN WEST

Mr. MACGOWAN. Water produced by that plant would perhaps cost 35 cents.

Senator BIBLE. Thirty-five cents per thousand gallons a day.

I wish you would check the figures to translate that into acre-feet, because we in the West use acre-feet as a measurement a lot more than a thousand gallons per day.

Mr. MACGOWAN. It is about $325 per acre-foot today.

Senator BIBLE. And you think if you have a plant of this size and can make it operational, then it would still be in the neighborhood of $100 per acre-foot?

Mr. MACGOWAN. Yes, sir. Almost out of the question for irrigation at that cost.

Senator BIBLE. Yes. I was not thinking of it in terms of irrigation.

USES OF DESALINATION WATER

It seems to me for the foreseeable future, the most you can use desalination for is for potable uses, domestic uses, industrial uses.

Mr. MACGOWAN. One other aspect, Senator. It may be possible to utilize water conversion for municipal and industrial uses at the same time you use untreated river water for the irrigation, so that the conversion of water would free relatively large quantities of ground water for further irrigation use, because this does not have to be treated in any way.

WATER FOR THE CITY OF LOS ANGELES, CALIF.

Chairman HAYDEN. Take, for example, the city of Los Angeles. If a rate for the production of fresh water from sea water was such that for all municipal purposes, in that great city, you would get water from the Pacific Ocean, then they would not have to use water from the Colorado River.

Mr. MACGOWAN. Correct. It would take 8 to 10 of these plants to do that, Senator.

Senator BIBLE. I think they have said, Mr. Chairman, that they estimated that this plant would cost something under $100 million, with the best estimate they can make now.

Would you have any idea what the cost of domestic and industrial water is in the city of Los Angeles now?

Would you supply that for the record, both on a thousand gallons per day basis and on an acre-foot basis? Because water is our lifeblood.

Mr. MACGOWAN. Right.

(The information referred to follows:)

*Consumer water rates of the Metropolitan Water District of Southern California*

| Rate Jan. 1, 1963, to Jan. 1, 1964 | Normal use | | Agricultural use | |
|---|---|---|---|---|
| | Treated | Untreated | Treated | Untreated |
| Per acre foot | $29.00 | $21.00 | $22.25 | $14.25 |
| Per 1,000 gallons | .089 | .064 | .068 | .044 |

Source: Information derived from 1962 Annual Report o fthe Metropolitan Water District of Southern California.

TIJUANA, MEXICO

Senator BIBLE. This estimate of yours, Mr. MacGowan—as optimistic as it is, I do not know how much good it is going to do us at that price. That is what we are trying to find out.

I have asked you about Guantanamo. I have one further suggested question.

We have received reports that Mexico, or the city of Tijuana, has indicated an interest in the saline water conversion plant in Baja California. Have you been involved in any conversations concerning such a possibility?

Mr. MACGOWAN. Yes, sir. At the request of the Mexican Government, the Office of Saline Water and the Department of Interior did what we call a preliminary appraisal study. We went down and looked at it, and it appeared that saline water conversion was practical there.

The report has been written. It is in the process of discussion with the Mexicans. And this is exactly where it stands now. No conclusion has been reached.

### STUDY ON VERY LARGE PLANTS

I would like to add that there is a study, a joint study, between the Office of Saline Water, and the AEC, relative to very large plants, meaning 500 million or larger. At this moment, the results are inconclusive, but they appear to be more favorable than the 25 to 35 cents I mentioned to you.

### COST OF DESALINATION WATER

Chairman HAYDEN. At what cost is water being delivered by the plant in San Diego, now, for municipal use?

Mr. MACGOWAN. At about a dollar, sir. Just fractionally over a dollar.

Chairman HAYDEN. That is how much per acre-foot?

Mr. MACGOWAN. That is $325.

Senator BIBLE. It is still $325 per acre-foot, Mr. Chairman.

Chairman HAYDEN. And this is the cheapest water?

Mr. O'MEARA. From seawater, that is true.

Senator BIBLE. I guess your South Dakota one is 80 cents.

### PROGRESS IN DESALINATING WATER PROGRAM

Mr. MACGOWAN. I would like to point out that these plants, while they are intended to be tests of production, are indeed only to serve as indicators, and I think the dollar final figure that we are using should not be utilized as a dollar barrier, which seems to exist in many areas. This dollar is no real thing to break. We can break that simply by going to a larger plant or using higher temperatures. What I am trying to be is a little more encouraging about that dollar figure, because these plants were designed 3 and 4 years ago. If we were to design one today, we would design one for very much higher temperatures, very much higher pressures and very much more efficient. The conversion ratio in the Point Loma plant, which was the best in the world, was 15 to 1. We are confident that we can get a 20 or 22 to 1 plant if we were to replace Point Loma.

Senator BIBLE. I have always been a strong advocate of your program. I think you men are in a challenging and intriguing field, and I think you are making real progress and I hope you will make even more.

### OPERATIONS AND MAINTENANCE

Let me ask you some questions on "Operation and maintenance." You indicate a need for $2,300,000 in fiscal year 1965, an increase of $450,000 over the amount appropriated in fiscal year 1964. The justification for the request will be included in this point in the record.

(The justification statement referred to follows:)

*Operation and maintenance*

| | |
|---|---|
| Appropriation, 1963 | $2,000,000 |
| Comparative transfer from other account | +39,000 |
| Transfer to "Operating expenses, public buildings service," General Services Administration | −14,800 |
| Total available, 1963 | 2,024,200 |
| Appropriation, 1964 | 1,850,000 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | |
|---|---|
| To provide for increased pay costs for fiscal year 1964 positions | 5,000 |
| Increases in cost of operating and maintaining demonstration plants | 445,000 |
| Net increase, 1965 | +450,000 |
| Budget estimate, 1965 | $2,300,000 |

*Analysis by activities*

| Activity | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Demonstration plants | $1,184,633 | $1,850,000 | $2,300,000 | +$450,000 | +$5,000 | +$445,000 |
| Unobligated balance lapsing | 839,567 | | | | | |
| Total | 2,024,200 | 1,850,000 | 2,300,000 | +450,000 | +5,000 | +445,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

JUSTIFICATION, DEMONSTRATION PLANT PROGRAM

OPERATION AND MAINTENANCE

(a) *Operation and maintenance, $1,650,000*

The estimate of $1,650,000 represents an increase of $350,000 over the 1964 level to cover the energy, operation, and maintenance charges of the four plants currently in operation and for minor process improvements and changes.

This increase over the fiscal year 1964 level consists of two factors. The first involves operation of the San Diego plant at elevated temperatures. The evaporator at this plant have been operated for test purposes on an intermittent basis at temperatures above the original design ratings which in turn has increased production and operating costs, with a net reduction in the cost of product water. Indications are that operating temperatures can be increased further and it is intended to increase operating temperatures on an intermittent test basis through fiscal year 1964 for evaluation of possible plant changes necessary for conversion to still higher operating temperatures on a continuous basis during fiscal year 1965. Operation at this higher temperature level on a continuous basis will increase energy costs by an estimated $75,000.

The second factor consists of minor process changes and improvements in three plants amounting to $275,000. The proposed changes will involve the installation of plate-type heat exchangers at the Roswell, N. Mex., plant estimated to cost $160,000, the installation for test and evaluation of one thin film evaporator at Freeport, Tex., at an approximate cost of $70,000, and the installation of a horizontal split case pump in place of the present vertical submerged pump estimated at $45,000 at San Diego, Calif.

(b) *Major process improvement and plant change, $400,000*

Major process improvements and plant changes consists of two separate items. The major process improvement estimate is $130,000 and covers the installation of one liquid-to-liquid heat exchanger at the Freeport, Tex., plant. It is anticipated that operating costs will be reduced and productivity increased after completion of this installation.

The major plant change consists of $270,000, representing the initial stage of changes estimated to eventually cost a total of $750,000 at the San Diego plant. This change involves the installation of and incorporation into the system of a slurry technique in order to expand the plant to high temperature operation on a permanent basis. The remaining plant changes necessitated by this changeover, amounting to $480,000, is not being requested at this time. The remaining changes will consist of the installation of additional brine heaters, evaporator stages, heat reject stages, recycle pumps, and the necessary instrumentation and piping.

(c) *Administration, $250,000*

The estimate of $250,000 is an increase of $25,000 over 1964 which includes $5,000 for increased pay costs. The estimate provides for the administration of the demonstration plant program which includes operating and determining the engineering potential of the four plants under operation and personnel required to supervise the architectural, engineering, and construction work of much larger plants now under consideration. The two additional positions are requested in 1965. This personnel will be required to handle work connected with feasibility studies on new plants, design changes, improvements and alterations to existing demonstration plants, and to assist in the performance of the steadily increasing engineering workload.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $1,184,633 | $1,850,000 | $2,300,000 | +$450,000 |
| Comparative transfer from other account | −39,000 | | | |
| Unobligated balance lapsing | +839,567 | | | |
| New obligational authority | 1,985,200 | 1,850,000 | 2,300,000 | +450,000 |
| Appropriation | 2,000,000 | 1,850,000 | 2,300,000 | +450,000 |
| Transfer to "Operating expenses, public building services," General Services Administration | −14,800 | | | |
| Adjusted appropriation | 1,985,200 | 1,850,000 | 2,300,000 | +450,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 134,449 | 169,000 | 207,000 | +38,000 |
| 12 Personnel benefits | 9,936 | 12,000 | 15,000 | +3,000 |
| 21 Travel and transportation of persons | 12,001 | 23,000 | 30,000 | +7,000 |
| 22 Transportation of things | 926 | 2,000 | 5,000 | +3,000 |
| 23 Rent, communications, and utilities | 235,731 | 408,000 | 443,000 | +35,000 |
| 24 Printing and reproduction | 6,522 | 12,000 | 13,000 | +1,000 |
| 25 Other services | 778,851 | 1,212,000 | 1,571,000 | +359,000 |
| Services of other agencies | 2,261 | 5,000 | 3,000 | −2,000 |
| 26 Supplies and materials | 2,767 | 4,000 | 7,000 | +3,000 |
| 31 Equipment | 1,189 | 3,000 | 6,000 | +3,000 |
| Total obligations | 1,184,633 | 1,850,000 | 2,300,000 | +450,000 |

PROPOSED BUDGET FOR DEMONSTRATION PLANTS

Senator BIBLE. I think it would be well for you to discuss the proposed division of this money among the various activities and the demonstration plants.

Mr. MACGOWAN. Yes, sir.

GUANTANAMO PLANT

The plant that we are considering moving at Guantanamo was in this originally. So if it is all right with you, sir, I would like to supply for the record a correction, because these numbers will be slightly modified.

But based on the original request, we had programed $1,375,000 for the physical operation of the plants, meaning the usual pipefittings, labor, power, and fuel.

The revised estimate now is $940,000 which is a reduction of $750,000 just the amount that was for the San Diego plant.

Senator BIBLE. That comes about because of the transfer to Guantanamo.

Mr. MCGOWAN. Correct. And the improvements and changes, meaning the technical improvements in the process, we had programed for $675,000, including a major job at San Diego, in which we were going to completely revise the sea intake and the processing. The new figure would be $360,000.

As far as administration is concerned, the administration is $250,000 in both cases, which provides for two more people, because of the added studies which we are doing.

### SAN DIEGO POINT LOMA REPLACEMENT PLANT

Senator BIBLE. All right.

Now, one further question and I do not know whether I covered it sufficiently in earlier questioning or not. You again will build a demonstration plant on the Pacific coast. Will you go back to Point Loma? I assume you possibly will go right back there for your new site location?

Mr. MACGOWAN. This is our plan; yes, sir.

Senator BIBLE. Will it be a million-gallon plant, or will you go into a larger plant, or into a different type of plant, when you rebuild that?

Mr. MACGOWAN. At this point, may I get just a little bit detailed?

Senator BIBLE. Surely.

Mr. MACGOWAN. The plant at San Diego, which originally started about 4 years ago, in the site selection, or the process selection, was designed to operate at 190°. We now wish to make the replacement plant, if such a plant is granted, to begin operating at 250°. The interval of 60° seems relatively unimportant, but I would like to point out that when we built that plant, no one in the world knew how to handle scale at these relatively higher temperatures.

### HANDLING SCALE

Senator BIBLE. What do you mean by "scale"?

Mr. MACGOWAN. This is the scale that forms in the tubes and reduces the heat transfer and increases the cost.

We were able to successfully handle scale at 200°, at 210°, 220°, until we got to 250°. As a result of this, sir, and this has been within the past year, all of the plants designed by the major American suppliers have been based upon the fact that they would design them at 250°. And we think this is a major step.

We wish to take one more step. We would like to design the replacement plant to begin at 250°, with a possibility of going to 350° ranges. Again, the economies and the construction features would be very attractive, we think, to a great lowering of the costs.

Senator BIBLE. Surely. Well, then, as unfortunate an incident as this was it might have been a real blessing in disguise, because Guantanamo will be self-sufficient now, No. 1, and No. 2, you will

have the opportunity of moving the art along a further step. Will it still be a million gallons? In that range?

Mr. MACGOWAN. A million gallons at 250°, possibly a million and a half at 350°, but certainly the same size range of plant.

### LARGER CAPACITY PLANTS

Senator BIBLE. Why do you not go into a bigger plant down there now? Why do you not go into a 5 million one, for example?

Mr. MACGOWAN. We have considered this, and at this highly experimental level, it may be too much of a gamble—too much money. We could get the same answers from a 1-million-gallon plant as we could from a 5-million-gallon plant.

Senator BIBLE. Would that be true of a 10-million-gallon plant?

Mr. MACGOWAN. More true. We would hesitate to gamble on $10 million as opposed to a million dollars.

Senator BIBLE. I see.

Mr. MACGOWAN. And we would like very much to get the good solid answers out of the million-gallon plant.

Senator BIBLE. You could do that for far less cost than getting into the bigger plants, I understand.

### INTERNATIONAL CONFERENCES ON DESALINATION OF WATER

Mr. MACGOWAN. The question you asked earlier about the international aspects of this: The bill which you so ably handled also gave provisions for international conferences.

Senator BIBLE. Yes; I recall that.

Mr. MACGOWAN. Such a conference is now planned for October of next year, October of 1965, fiscal 1966, and you may be interested to know that it will be held here in Washington?

Senator BIBLE. Splendid.

Mr. Chairman, did you have any questions of Mr. MacGowan?

Senator HAYDEN. No questions.

Senator BIBLE. Thank you very much, Mr. MacGowan, Mr. O'Meara, and Mr. Miller. We appreciate your appearances.

(CLERK'S NOTE.—Subsequent to the hearings the Department asked that the operation and maintenance estimate not be reduced. The letter of request follows:)

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
*Washington, D.C., March 4, 1964.*

Hon. CARL HAYDEN,
*Chairman, Committee on Appropriations,*
*U.S. Senate, Washington, D.C.*

DEAR MR. CHAIRMAN: At the time of his appearance before your committee on March 2, 1964, Director Charles F. MacGowan, of the Office of Saline Water, presented a statement in connection with the estimate of $2,300,000 for operation and maintenance of saline water conversion demonstration plants for the fiscal year 1965. On page 2 of this statement your committee was informed of plans for the transfer of the San Diego demonstration plant to the Navy and was advised of a reduction of $750,000 in the requirements for operation and maintenance of demonstration plants in 1965, which had previously been set forth on pages 22 to 27 of the justification for the 1965 estimates. It has now been determined that there will be a firm requirement for appropriation of the $750,000 item for replacements at San Diego. This will cover a portion of the cost of the replacement plant.

The Department of the Navy will take over a substantial portion of the equipment in the San Diego plant on a reimbursable basis. That portion of the plant will be transported by the Navy to its base at Guantanamo, Cuba, for installation there to meet its immediate fresh water requirements. The dismantling and transfer of the San Diego plant will give the Office of Saline Water an opportunity to replace the flash distillation equipment as originally built with a new advanced design flash distillation equipment which will be designed for an output of 1 million gallons per day when operating at a basic temperature of 250° F. (brine heater temperature) with a potential maximum capacity of 1.5 million gallons per day at the highest maximum temperature of 350° F.

The new plant size will be commensurate with the facilities of the city of San Diego to handle the product water. The vested interests of the State of California and the city of San Diego in the original plant will be continued in the new plant. The advancement of the saline water program in developing the distillation process will be carried out to the utmost in the new plant.

The cost of the replacement plant is expected to be as follows:

| | |
|---|---|
| Engineering and specifications | $150,000 |
| Plant construction | 2,260,000 |
| Performance test operation | 90,000 |
| Total | 2,500,000 |

As soon as is practical, invitations for proposals covering the design and preparation of specifications will be issued by the Office of Saline Water, preliminary to selection of a design contractor. Upon completion of this initial phase, steps will be taken to initiate the construction of the replacement plant at San Diego so that further research and development may be continued on the flash distillation process at high temperature.

The appropriation "Construction, operation, and maintenance, Office of Saline Water," has a current balance of $700,000 in a reserve category, and can be made available for use in meeting San Diego replacement costs with the approval of the appropriate congressional committees and the Bureau of the Budget. In addition, it is expected that an appropriation reimbursement will be obtained from the Navy in the amount of approximately $1,050,000 to cover the value of that portion of the San Diego plant which is transferred to the Guantanamo Bay Naval Base. The 1965 estimates for the appropriation, "Operation and maintenance, Office of Saline Water," now include $780,000 for the San Diego plant, of which it is anticipated that $750,000 will not be required due to the plant shutdown. It is therefore requested that your committee appropriate the $750,000 estimate for 1965, authorize its use for plant replacement, and also approve use of the $700,000 existing balance in construction funds to meet the financial requirement for replacement of the San Diego water conversion demonstration plant.

In the event that the committee concurs with our proposed program, we shall be glad to supply any further details which may be required.

Sincerely yours,

D. Otis Beasley,
*Assistant Secretary of the Interior.*

## Federal Coal Mine Safety Board of Review

## STATEMENTS OF CHARLES R. FERGUSON AND GEORGE C. TREVORROW, MEMBERS, FEDERAL COAL MINE SAFETY BOARD OF REVIEW; TROY L. BACK, EXECUTIVE SECRETARY, AND ROBERT J. FREEHLING, GENERAL COUNSEL

### 1965 Budget Request

Senator Bible. Our next hearing will be on the Federal Coal Mine Safety Board of Review. We have as our witnesses Mr. Ferguson, Mr. Trevorrow, Mr. Back, and Mr. Freehling.

The proposed budget of the Coal Mine Safety Board of Review for fiscal year 1965 is $70,000; that is, an increase of $5,000 over the amount appropriated in fiscal year 1964.

The increase is required for meeting the cost of employee legislation. There was no increase in the number of employees. The justification will be printed in the record.

(The justification referred to follows:)

JUSTIFICATION STATEMENT

REQUIREMENTS FOR 1965

This request is in the amount of $70,000, of which $59,538 is for personal services and $10,462 is for other obligations. This sum is an increase of $5,000 over the amount appropriated for fiscal year 1964. The major part of the increase would afford funds for schedule step increases and basic salary increases, as provided by law, for the present staff of the Board.

CREATION OF THE BOARD

The creation of the Federal Coal Mine Safety Board of Review is provided for in title II of the Federal Coal Mine Safety Act, Public Law 552, 82d Congress, which act became effective on July 16, 1952, and reads in pertinent part, as follows:

"SEC. 205. (a) An agency is hereby created to be known as the Federal Coal Mine Safety Board of Review, which shall be composed of three members who shall be appointed by the President, by and with the advice and consent of the Senate."

In brief, the present act amends the Federal Coal Mine Inspection and Investigation Act of May 7, 1941, Public Law 49, 77th Congress, by authorizing representatives of the Bureau of Mines to control certain dangerous conditions and practices which might result in major coal mine disasters, and by creating the Board to which operators may apply for relief from orders issued under the act.

ORGANIZATION OF THE BOARD

The original Board was appointed by the President on August 21, 1952. It opened its offices on September 24, 1952, in Washington, D.C.

ADJUDICATORY DUTIES AND WORKLOAD OF THE BOARD

It is the duty of the Board to hear and determine applications filed with it by coal mine operators seeking annulment or revision of, and temporary relief from, orders issued by the Bureau of Mines, pursuant to section 203 or 206 of the Federal Coal Mine Safety Act. In performing its adjudicatory functions, the Board is required, in docketed cases, to conduct public hearings (which are generally held close to the mines involved); to resolve interlocutory matters; to render final decisions and orders; and to certify records on appeals to the courts. All such actions of the Board, under the specific mandate of the statute, must be taken "as rapidly as practicable" in order to effectuate the underlying safety purposes of the act.

As to workload, from July 16, 1952, the effective date of the act, through July 31, 1963, the Bureau of Mines issued over 1,400 orders subject to appeal to the Board, an undetermined number of which are still outstanding. During this period, the Board received 26 formal applications for review of orders, and hearings on each application were conducted, requiring from 1 to 12 days. Also during this period, the Board handled a substantial number of disputes which were settled by voluntary actions of the parties, rather than by the filing and litigation of formal appeals. The Board estimates that from 100 to 125 additional orders subject to appeal to this agency will be issued by the Bureau of Mines in fiscal year 1965.

OTHER DUTIES OF THE BOARD

Apart from its adjudicatory functions, the Board must perform the broad range of activities of any independent, quasi-judicial agency in the executive branch of the Government. Such activities include, among others, the preparation and adoption of administrative orders and regulations; the maintenance of records,

files, and supporting data; the submission of administrative reports to other executive departments and agencies, and to the Congress; the prompt handling of inquiries and correspondence; the analysis of, and detailed reporting on, proposed and pending legislation; the participation in hearings before committees of the Congress; and the discharge of other advisory and information responsibilities.

PERSONNEL COMPLEMENT

In addition to the three members of the Board, who are employed on a w.a.e. basis, the Board is currently operating with a limited staff of only four full-time employees; namely, an executive secretary, a general counsel, and two office employees. These full-time personnel must be particularly qualified to assist the Board in fulfilling its adjudicatory duties and in performing, responsibly and without close supervision, the many and varied administrative and legal tasks of this independent agency. The amount requested in the budget for fiscal year 1965 would restrict the Board to its current staff level, which is the bare minimum required by the Board to discharge its responsibilities under the act and to accomplish its statutory mission. As mentioned hereinbefore, the additional appropriation for fiscal year 1965, would be devoted in substantial part to defraying the increased benefits, as provided by law, for the present minimal staff.

PROGRAM AND PERFORMANCE

Coal mine operators, affected by orders issued by Federal coal mine inspectors may appeal to the Board for annulment or revision of, and temporary relief from, such orders. During 1963, a total of 107 orders were issued. When operators appeal, hearings are held, and the Board rules upon the applications. It is estimated that there will be 100 to 125 orders subject to appeal to the Board in 1965. The recommended appropriation includes an amount estimated to be sufficient to cover necessary administrative expenses and to handle an expected caseload estimated on the basis of the average actual annual caseload for the past 10 years.

SALARIES AND EXPENSES

*Statement relating 1963, 1964, and 1965 programs*

[In thousands of dollars]

| | |
|---|---|
| 1963 program (total costs) | 59 |
| Maintenance of past year employment level | +5 |
| Other increases | +1 |
| 1964 program (total costs) | 65 |
| 1965 program (total costs) | 70 |

*Analysis by activities*

[In thousands of dollars]

| Activities | 1963 | Decreases | Increases | 1964 | Decreases | Increases | 1965 |
|---|---|---|---|---|---|---|---|
| Administration and adjudication (total program costs) | $59 | | $6 | $65 | | $5 | $70 |

Requirements for 1965. This request is in the amount of $70,000, of which $59,538 is for personnel compensation and $10,462 is for other obligations.

### Justification for Personnel Compensation

The following summary table and statement present the essential facts with respect to this item:

| | 1963 actual | 1964 estimate | 1965 estimate | Estimated change in 1965 from 1964 |
|---|---|---|---|---|
| 1. Number of permanent positions | 4 | 4 | 4 | 0 |
| 2. Annual salary cost of permanent positions | $46,617 | $49,867 | $52,335 | +$2,468 |
| 3. Other personnel compensation | | 397 | 203 | −194 |
| 4. Positions other than permanent (3 Board members) | 5,100 | 6,000 | 7,000 | +1,000 |
| Total personnel compensation | 51,717 | 56,264 | 59,538 | +3,274 |

The four permanent positions listed represent the minimum staff required to carry out the statutory duties of the Board.

### Justification for Other Obligations

A total of $10,462 is requested for "Other obligations" in budget year 1965. The following summary table and statements present the essential facts with respect to these items:

| | 1963 actual | 1964 estimate | 1965 estimate | Estimated change in 1965 from 1964 |
|---|---|---|---|---|
| 12 Personnel benefits | $3,593 | $3,887 | $4,112 | +$225 |
| 21 Travel and transportation of persons | 1,697 | 2,500 | 3,500 | +1,000 |
| 22 Transportation of things | | 10 | 10 | 0 |
| 23 Rent, communications, and utilities | 867 | 900 | 1,000 | +100 |
| 24 Printing and reproduction | 210 | 300 | 300 | 0 |
| 25 Other services | 119 | 200 | 250 | +50 |
| 26 Supplies and materials | 585 | 600 | 700 | +100 |
| 31 Equipment | 701 | 339 | 590 | +251 |
| Total | 7,772 | 8,736 | 10,462 | +1,726 |

### Detailed Statement

*12 Personnel benefits.*—The $4,112 requested for this item will be required to defray the aggregate costs to the agency resulting from various laws enacted in the interest of Federal employees, as follows: Employer's share of cost of employees' life insurance, $176; health benefits, $231; retirement, $3,415; and Federal Insurance Contributions Act taxes, $290.

*21 Travel and transportation of persons.*—The $3,500 requested for this item includes $2,500 for travel expenses for Board members and $1,000 for transportation and subsistence for the executive secretary and the General Counsel of the Board.

*22 Transportation of things.*—This small sum of $10 is requested to defray any costs that may rise in connection with the shipment of files, records, or other documents required in connection with hearings held outside of the District of Columbia.

*23 Rent, communications, and utilities.*—The $1,000 requested for this item includes $750 for local telephone costs; $150 for long distance telephone calls; $50 for airmail, special delivery, and other postage stamps; and $50 for telegraph service.

*24 Printing and reproduction.*—The $300 requested for this item includes the cost of administrative forms, letterheads, envelopes, etc.; and the printing of regulations and issuances of the Board.

*25 Other services.*—The $250 requested for this item will provide $155 for the maintenance of equipment used in day-to-day operations, and $95 for health services provided by the Public Health Service.

*26 Supplies and materials.*—The $700 requested for this item includes the cost of all office supplies and commodities normally required in an agency of this kind.

*31 Equipment.*—The $590 requested for this item will provide funds for the purchase of such equipment as may be required.

ACTIVITIES OF THE BOARD

Senator BIBLE. The Board is required by law to hear and determine applications filed with it by coal mine operators in accordance with the provisions of the Federal Coal Mine Safety Act. The committee will be glad to receive from you a statement of the activities of the Board during the past year.

And who is testifying? Mr. Ferguson? Very fine.

Mr. FERGUSON. We have a prepared statement.

Senator BIBLE. That will be incorporated in full in the record, and you may highlight it in your own way.

(The statement referred to follows:)

STATEMENT OF FEDERAL COAL MINE SAFETY BOARD OF REVIEW

The Federal Coal Mine Safety Board of Review is requesting an appropriation of $70,000 for fiscal year 1965, which is $5,000 over the amount appropriated for the current year. This slight increase reflects no proposed expansion in either the personnel or program of the agency. Rather, it is intended, primarily, to cover the basic salary and automatic schedule step additions now provided by law, for the present full-time staff.

As you will recall, the Board is a completely independent, quasi-judicial agency, engaged in a broad range of adjudicative and administrative activities under title II of the Federal Coal Mine Safety Act. The agency is tripartite in nature and its members are appointed by the President, with the approval of the Senate.

The present Board members are Edward Steidle, dean emertius, College of Mineral Industries, Pennsylvania State University, serving as public representative and Chairman; George C. Trevorrow, safety director, Bituminous Coal Operators' Association, representing the coal mine operators; and Charles R., Ferguson, director, safety division, international union, United Mine Workers of America, representing the coal mine workers.

The total personnel of the agency consists of the three Board members, who serve on an intermittent basis, and a reduced complement of only four full-time employees. The duties performed by the Board are outlined in the budget estimate submitted to your committee. However, for your assistance, some further details regarding the operations of the Board will be provided here.

As to adjudicative duties, the Board serves as a buffer between the Bureau of Mines and the coal industry, principally to resolve disputes concerning orders issued by the Bureau, under the Federal Coal Mine Safety Act. That act, as you will recall, was adopted by Congress, in 1952, in a determined effort to reduce the incidence of major coal mine disasters from explosions, fires, inundations and man-trip and man-hoist accidents. To this end, the act vests enforcible authority in the Bureau to order mines classified as "gassy," and ot order mines closed because of imminent danger of disaster, or failure to correct specific violations of the act, within the time provided therefor. It further provides for the authority in the Board to resolve conflicts with regard to such orders: and, in so-called State plan areas, it delegates power to the Board alone to annul mine closing orders posted by the joint inspectors.

Almost 1,500 orders, and over 20,000 related findings of violations, have been issued by the Bureau under the act, including 145 new orders, and over 1,100 new findings of violations, issued during the last calendar year. These orders and related findings are the sources of controversies which are presented formally or informally to the Board for settlement. And, under specific requirements of the law, the Board must be prepared, at all times, to act promptly in resolving such disputes, in order to prevent serious economic hardship and to avert the devastation of a major coal mine disaster.

As previously mentioned, disputes may be presented formally or informally to the Board for settlement. In a formal, docketed case, the Bureau of Mines must first actually close the mine or classify it as "gassy." Then, the Board, upon appeal, is required immediately to hear and determine any request for temporary

relief; to conduct de novo hearings on the merits; to dispose of interlocutory questions; to prepare and issue a final decision and order; and, if review of Board action is sought by the Government or an operator, to certify the record to the U.S. Court of Appeals.

However, such formal litigation, while unavoidable in certain instances, is obviously time consuming and disrupts not only the mine operations but also the enforcement of the act and the strict compliance with its provisions. Therefore, the Board members, as a matter of policy, seek to minimize the need for resort to litigation, and devote their efforts most frequently to resolving disputes by the voluntary actions of the parties, without the docketing and required processing of formal appeals. These actions in nondocketed matters take a variety of forms, including, for example, extended meetings with counsel and the parties on decided cases and alternate procedures; serving as intermediary with the Bureau to resolve misunderstandings; devising and suggesting new work programs; anticipating conflicts or areas of disagreement; expediting changes in operations; and, by an expressed readiness to redress sound grievances, aborting the issuance of unreasonable or arbitrary orders. In the Board's opinion, such activities constitute a more productive exercise of its adjudicative authority and facilitate the successful operation of the act.

At this point, the Board would call to the committee's attention that the mine-safety program, under which the Board serves in a critical role, has reduced the number of men killed in major coal mine disasters by over 72 percent since the adoption of the Federal Coal Mine Safety Act. Much still can be done, particularly if certain statutory amendments now pending before Congress are enacted. But this record amply confirms that the Board's efforts are properly directed and are contributing substantially to reaching the goals sought to be accomplished by the present act.

Besides its adjudicative duties, the Board is responsible, as an independent, quasi-judicial agency, for a wide range of administrative and related activities. For instance, the Board must prepare numerous administrative orders and reports; draft rules, regulations, and procedural forms; maintain records and supporting data; perform diverse accounting operations; promptly answer inquires and correspondence; and fulfill other information requests.

Moreover, the Board must attend congressional hearings; submit regular reports to Congress; and, upon request, analyze and report and make recommendations on, proposed and pending legislation. In the latter regard, the Board, during the last calendar year alone, was required to analyze and report on over 800 pages of legislative matters. Also, during this period, the agency was called upon to consider, and assist in drafting, extensive amendments to the Federal Coal Mine Safety Act, which would substantially expand both the jurisdiction and functions of the Board. That proposed legislation was favorably reported out of the House Education and Labor Committee on November 19, 1963, and is now pending before the House Rules Committee. (See H. Rept. 936 on H.R. 9000, dated Dec. 2, 1963.)

In addition to such activities, the Board is required to perform various special assignments for the industry and for other offices, departments, and agencies in the Government. Of particular significance in this connection, the Board, during the last year, assisted two other agencies in establishing their appeals systems; participated, at the special request of the industry and the Bureau, in a national first aid and mine rescue training program; and worked intensively and directly with the Office of the President, on major coal-mine disaster problems.

As previously indicated, the Board has carried out its many duties and responsibilities with a full-time staff of only four employees. Since the Board members are employed on an intermittent basis, these employees are required to be particularly experienced and well-trained, and must responsibly assist the Board, in the performance of its adjudicative and administrative duties, without day-to-day supervision and with a wide latitude of authority. The staff has already been reduced to the minimum necessary to maintain the operations of the Board and to insure that this agency can continue to fulfill its grave responsibilities under the act. No increase in personnel is sought for the next fiscal year.

As your committee is undoubtedly aware, the Board, since its very inception in 1952, has rigidly confined its staff and other expenses to the least amount required to perform its statutory duties and functions. The budget of $70,000 for fiscal year 1965, submitted for your approval, reflects a strict adherence to this policy, and you are assured that the Board will continue to limit its expenditures to the bare minimum needed to accomplish its mission in the field of coal-mine safety.

HIGHLIGHT STATEMENT

Mr. FERGUSON. Well, of course, our justification goes into all details of the required $70,000, and the Federal Coal Mine Safety Board of Review is a unique agency. It has one principal function and that is to act on appeals filed by coal-mine operators from orders issued by the U.S. Bureau of Mines in accordance with the provisions of Public Law 552.

The Board is a completely independent agency, of course, and has no connection with any other governmental agency and is one of the smallest, if not the smallest, agency in government.

It is composed of three board members, who are part time or rather who are paid only when they are actively engaged in work of the Board, and four full-time employees, composed of a general counsel, an executive secretary, and two clerical or stenographic employees.

CASE LOAD

In addition to the hearing of cases, we believe that the Board has many other functions and our caseload is no indication, in our opinion, of what the Board actually does, insofar as coal-mine safety is concerned.

It has been the policy of the Board, and is the policy, that, if we can prevent a case coming to an actual hearing, by consultation, conference, and joint action with the parties concerned—and we carry this on, almost on a daily basis—we believe that we are serving the purpose of the act and the intent of Congress. Therefore, our caseload is not indicative of our activity.

You will understand, of course, that each order issued by the Bureau of Mines is a potential case before the Board. Each finding may result eventually in an order by the Bureau of Mines. So we are not able at any time to tell you just what the caseload may be.

The Board, I might say, is dedicated to operating with a minimum of expense. We believe, $70,000 is the minimum that we will need under out past experience and what we believe will be necessary for the next fiscal year, taking into consideration that there are certain salary increases, wage adjustments, that are a matter of congressional action, over which the Board has no jurisdiction.

We will, as we have in the past, continue to operate at a minimum of expense, subject of course to our carrying out our duties as required by the act.

If our caseload does not indicate that we will need all this money now, we will follow our past practice, as we did in the 1963 budget, wherein $10,000 of the Board's funds were unused or unallocated. That has been the history of the Board.

I happen to have served on the Board since its inception in 1952, when the act was first passed, and I know that policy will continue.

PERSONNEL

Senator BIBLE. This is certainly a modest Board. As I understand it, you have three Board members.

Mr. FERGUSON. That is correct.

Senator BIBLE. You two gentlemen here, and Mr. Steidle?

Mr. FERGUSON. Dean Steidle, who cannot be here today.

Senator BIBLE. And you are the three Board members? You serve on an intermittent basis?

Mr. FERGUSON. That is correct.

Senator BIBLE. And then you have four full-time employees, that is the extent of your personnel.

Mr. FERGUSON. That is correct.

### APPEALING BOARD FINDINGS

Senator BIBLE. Now, tell me this, just for information. After you make a finding, is that reviewable? Can they take you to court?

Mr. FERGUSON. Oh, yes. To the court of appeals and to the Supreme Court, if necessary.

Senator BIBLE. They party who is not satisfied with your decision can appeal even to the circuit court of appeals or to the U.S. Supreme Court?

Mr. FERGUSON. That is right. They have that right.

Senator BIBLE. I mean they cannot go to the Supreme Court originally?

Mr. FERGUSON. They go to the court of appeals first. Then they can go to the Supreme Court, if need be.

Senator BIBLE. They can appeal the court of appeals decision?

Mr. FERGUSON. That is right.

Senator BIBLE. I have no further questions.

Mr. Chairman?

Chairman HAYDEN. I do not have any.

Senator BIBLE. Thank you very much, gentlemen.

Our next hearing is on the Corregidor-Bataan Memorial Commission.

## CORREGIDOR-BATAAN MEMORIAL COMMISSION AND VETERANS' ADMINISTRATION

### STATEMENTS OF EMMET O'NEAL, CHAIRMAN, AND SAMUEL G. KELLY, EXECUTIVE DIRECTOR, CORREGIDOR-BATAAN MEMORIAL COMMISSION, ACCOMPANIED BY V. P. MILLER, DIRECTOR, BUDGET SERVICE, AND L. G. SCHWEICKART, EXECUTIVE ASSISTANT, OFFICE OF ASSISTANT ADMINISTRATOR FOR CONSTRUCTION, VETERANS' ADMINISTRATION

### 1965 BUDGET REQUEST

Senator BIBLE. Gentlemen, if you would, please identify yourselves for the record.

Mr. O'NEAL. Emmet O'Neal, Chairman of the Commission; Captain Kelly, the Executive Director; serving without pay for a long time. Senator McGee, over there, is a member of the Commission.

Captain KELLY. Mr. Schweickart from the Construction Division of the Veterans' Administration, and Mr. Miller, who is the Director of the Budget Service of the Veterans' Administration, are also here.

We are housed in the Veterans' Administration, and that is why these gentlemen are here, sir; and the appropriation is to them also.

Senator BIBLE. Very fine, gentlemen. The budget estimate for the fiscal year 1965 for expenses of the Corregidor-Bataan Memorial Commission is $25,000. The statement and justification of this request will be included in the record at this point.

JUSTIFICATION STATEMENT FOR 1965 BUDGET ESTIMATE

The Corregidor-Bataan Memorial Commission was created by an act of Congress in 1953 (Public Law 193, 83d Cong., approved August 5, 1953). Its mission is to plan a memorial to be erected on Corregidor Island to commemorate veterans who fought under the American Flag in the Pacific area during World War II. The enabling legislation authorizes appropriations of not to exceed $200,000 for necessary expenses of the Commission. $100,000 has been appropriated for this purpose in prior years. A recent amendment to the basic legislation (Public Law 88–240) authorized appropriation of $1,500,000 to the Veterans' Administration for construction of the memorial. The $25,000 requested under this heading will provide for administrative expenses of the Commission incurred in performing the following tasks:

1. Developing a study (The Memorial Study) in cooperation with the Philippines National Shrine Commission, for the location and erection of the memorial components, and assisting the VA in the preliminary phase of construction of these components described in subparagraph "i" of Public Law 88–240. This study will include—

(*a*) The site location of the twin flagpoles, and their height, size, composition, and design.

(*b*) The site location of the building, or buildings, for use as an auditorium and tourist center; and the dimensions, style, design, and interior arrangements and the furnishings.

(*c*) The site and boundaries of the contiguous battlefield park with the locations of its walks and roadways to the various points of historical interest.

(*d*) Determination of the type of war mementos and their location in the battlefield park.

(*e*) Determination of the location of historic markers and inscriptions thereon.

(*f*) Determination of the scope and content of the documentary films commemorating the Pacific phase of World War II, including the story of Bataan and Corregidor Island.

2. Preparing policy directives to guide the Veterans' Administration in carrying out all phases of the authorized construction.

3. Carrying out necessary liaison with the Veterans' Administration during the contractual and construction phases to the end that the Veterans' Administration may obtain such policy guidance as it may desire.

4. Developing plans for raising additional funds by public subscription for the erection of the memorial and to place into effect such of the plans as may be deemed practicable.

*Program and financing*

[In thousands of dollars]

| | 1963 actual | 1964 estimate | 1965 estimate |
|---|---|---|---|
| Program by activities: Planning the memorial (costs, obligations) | ---------- | $11 | $25 |
| Financing: New obligational authority (appropriation) | ---------- | 11 | 25 |

*Object classification*

[In thousands of dollars]

| | | 1963 actual | 1964 estimate | 1965 estimate |
|---|---|---|---|---|
| 11 | Personnel compensation, permanent positions | ---------- | 8 | 21 |
| 12 | Personnel benefits | ---------- | 1 | 2 |
| 21 | Travel and transportation of persons | ---------- | 2 | 2 |
| 25 | Other contractual services | ---------- | ---------- | ---------- |
| | Total obligations | ---------- | 11 | 25 |

Senator BIBLE. Also there will be placed in the record the fiscal year 1964 supplemental estimate in the amount of $11,000, for the same purpose, and the supplemental estimate of $1,500,000 to the

Veterans' Administration for planning and constructing a memorial on Corregidor Island.

Those will be inserted at this point in the record.

(The statements referred to follow:)

JUSTIFICATION STATEMENT FOR 1964 SUPPLEMENTAL ESTIMATE

The Corregidor-Bataan Memorial Commission was created by an act of Congress in 1953 (Public Law 193, 83d Cong., approved Aug. 5, 1953). Its mission is to plan a memorial to be errected on Corregidor Island to commemorate veterans who fought under the American flag in the Pacific area during World War II. The enabling legislation authorizes appropriations of not to exceed $200,000 for necessary expenses of the Commission; $100,000 has been appropriated for this purpose in prior years. The $11,000 requested under this heading will provide for administrative expenses of the Commission incurred in performing the following tasks:

1. Developing a study (the memorial study) in cooperation with the Philippines National Shrine Commission, for the location and erection of the memorial components described in subparagraph "i" of H.R. 7044. This study will include—

(*a*) The site location of the twin flagpoles, and their height, size, composition and design.

(*b*) The site location of the building, or buildings, for use as an auditorium and tourist center; and the dimensions, style, design, and interior arrangements and the furnishings.

(*c*) The site and boundaries of the contiguous battlefield park with the locations of its walks and roadways to the various points of historical interest.

(*d*) Determination of the type of war mementos and their location in the battlefield park.

(*e*) Determination of the location of historic markers and inscriptions thereon.

(*f*) Determination of the scope and content of the documentary films commemorating the Pacific phase of World War II, including the story of Bataan and Corregidor Island.

2. Preparing policy directives to guide the Veterans' Administration in carrying out all phases of the authorized construction.

3. Carrying out necessary liaison with the Veterans' Administration during the contractual and construction phases to the end that the Veterans' Administration may obtain such policy guidance as it may desire.

4. Developing plans for raising additional funds by public subscription for the erection of the memorial and to place into effect such of the plans as may be deemed practicable.

*Object classification*

[In thousands of dollars]

| | 1962 actual | 1963 estimate | 1964 estimate |
|---|---|---|---|
| 11 Personnel compensation, permanent positions | | | 8 |
| 12 Personnel benefits | | | 1 |
| 21 Travel and transportation of persons | | | 2 |
| 25 Other contractual services | | | |
| Total obligations | | | 11 |

JUSTIFICATION STATEMENT FOR VETERANS' ADMINISTRATION CONSTRUCTION

Public Law 193, 83d Congress, establishing the Corregidor-Bataan Memorial Commission in 1953, was recently amended (36 U.S.C. 426) to authorize an appropriation of $1,500,000 to the Veterans' Administration for the construction of a battlefield-type memorial to veterans who served in the Pacific area during World War II. Appropriation of this amount will provide for necessary planning, design, and construction expenses in fiscal years 1964 and 1965, as follows:

[In thousands]

| | Fiscal year 1964 | Fiscal year 1965 |
|---|---|---|
| Personnel compensation and benefits: 1 GS–12 for 8 months in fiscal year 1964 and for fiscal year 1965 to provide liaison with the architect-engineer selected and to supervise construction | $7,000 | $11,000 |
| Employee travel incident to the above | 4,000 | 4,000 |
| Contractual services and construction award: | | |
| Surveys and site investigations | 15,000 | ---------- |
| Schematic plans for memorial (master plans, coordination of future site work, utilities, services, etc.) | 15,000 | ---------- |
| Preliminary plans | 30,000 | ---------- |
| Working drawings | 54,000 | ---------- |
| Supervision | ---------- | 30,000 |
| Construction and display of model | 35,000 | 25,000 |
| Construction funds | ---------- | [1] 1,200,000 |
| Contingencies | ---------- | 70,000 |
| Total requirements | 160,000 | 1,340,000 |

[1] Includes placement of historical markers and mementos in the battlefield park, and the preparation of a documentary film.

It may not be possible to complete the project in fiscal year 1965, in which case some of the 1965 amounts shown above would be required in fiscal year 1966 instead.

*Program and financing*

[In thousands of dollars]

| | Costs to this appropriation | | | | | Analysis of 1964 financing | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total estimate | To June 30, 1962 | 1962 actual | 1963 estimate | 1964 estimate | Deduct selected resources and unobligated balances start of year | Add selected resources and obligated balances end of year | Appropriation required for 1964 | Appropriation required to complete |
| Program by activities: | | | | | | | | | |
| 1. Planning, design, and supervision | 175 | | | | 160 | | 15 | 175 | |
| 2. Construction | 1,325 | | | | | | 1,325 | 1,325 | |
| Total program costs, funded—obligations | 1,500 | | | | 160 | | 1,340 | 1,500 | |
| Financing: | | | | | | | | | |
| Unobligated balance carried forward | | | | | 1,340 | | | | |
| New obligational authority (appropriation) | 1,500 | | | | 1,500 | | | | |

*Object classification*

[In thousands of dollars]

| | | 1962 actual | 1963 estimate | 1964 estimate |
|---|---|---|---|---|
| 11 | Personnel compensation: Permanent positions | | | 6 |
| 12 | Personnel benefits | | | 1 |
| 21 | Travel and transportation of persons | | | 4 |
| 25 | Other services | | | 148 |
| | Total obligations | | | 160 |

Senator BIBLE. And we have a statement from Mr. O'Neal. You may either read the statement or highlight it, Mr. O'Neal.

STATEMENT BY MR. EMMET O'NEAL, CHAIRMAN, CORREGIDOR-BATAAN MEMORIAL COMMISSION

Mr. O'NEAL. Mr. Chairman, it would take just about 6 minutes; I believe I could save time just by reading it, if I may.

Senator BIBLE. You may proceed.

Mr. O'NEAL. The three appropriations requests before Congress reflect the compromise arrived at by President Kennedy and Vice President Pelaez of the Philippine Republic in order to secure prompt action by both Governments on the World War II memorial on Corregidor Island. Prompt action by the U.S. Government depends on this Commission completing certain tasks at the earliest practicable date. As this Commission presently has no appropriation, the two requests—one for $11,000 and one for $25,000—are to permit the employment of a small staff, in order that the Commission can start to function. This compromise I have referred to represents a reduction from the prior estimate of $7.5 million down to the present figure of $1.5 million. This latter amount, which is the U.S. share, is approximately equal to the ₱4 million already authorized by the Philippine Congress. Their plans for the cleanup of Corregidor, the restoration of Malinta Tunnel, and repair of roads and piers are now being implemented and favorable progress is being made. As of now, there has been no U.S. effort, and the requests before you are to permit this Commission to initiate the necessary planning in accordance with Public Law 88–240, signed by President Johnson last December 23.

INITIATION OF MEMORIAL PROJECT

This lower compromise figure, while disappointing in some respects to members of the Commission, is, nevertheless, accepted wholeheartedly. Its authorization by the Congress was supported by the Commission, and it received unqualified endorsement by the American Legion and the Veterans of Foreign Wars and many others. The fact that early initiation of the memorial project, as envisaged by President Kennedy, is now a probability, is welcome news to many of the millions of veterans of the war in the Pacific and to members of their families. I am constantly receiving word to this effect.

### Tasks and Responsibilities Under Public Law 88–240

The modest sums requested for the expenses of the Commission will enable us to proceed promptly to carry out our tasks and responsibilities under Public Law 88–240 and prior legislation. I append a list of these tasks to my statement. The first task of the highest urgency is for the Commission to decide on the design of the memorial project. The Veterans' Administration, as required by Public Law 88–240, will act as our construction agency and will be ready to act when we present this approved plan. Any undue delay in proceeding promptly will affect the present schedule of effort on the part of the Philippine Government. The budgeted expenses of the Commission are representative of our efforts to be frugal. Our record of past expenditures shows that we have been most economical in our operations.

### Delay of Supplementary Appropriation Bill

In view of the probability of the first supplementary appropriation bill being delayed, the $11,000 request may now be reduced to $7,000, which will barely suffice for the Commission's expenses to June 30, 1964. I would urge that all funds be made either available until expended or that unused sums be carried over for reappropriation, in view of the fact that our present authorization balance of about $95,000 must last until 1967.

### Personnel

Even though the Commission is now without funds for office expenses, correspondence is being received in increasing volume from many sources, including Members of Congress, which must be acted upon. There is also a requirement to draft budget requests, such as the ones before you, statements before the various committees of the Congress, and many other matters. As Chairman, it is my responsibility to see that all such duties are discharged. During the past year, the volume of work has not been too heavy and I have been able to carry it out with the patriotic and noncompensated assistance of former members of the Commission's staff. But the workload of the Commission under Public Law 88–240 now requires the full-time services of two staff members, and other additional services of a minor nature.

### Planning and Technical Services

The request for $1.5 million to be appropriated to the Veterans' Administration, which will act as our construction agency, includes an amount of $160,000 for planning and technical services. There is no objection on our part if, in accordance with your policy, the request for $1.5 million is reduced to this figure of $160,000. Funds for construction will then be requested in next year's budget.

### Commission Members and Compensation

The congressional members of this Commission include Senator McGee, Senator Case, and Senator Engle. As you probably know, no member of this Commission, including the Chairman, receives any compensation for his services.

APPRECIATION OF FILIPINO PEOPLE

Finally, Mr. Chairman, I would like to read a short cable sent by President Macapagal to President Johnson on December 23 last:

Please accept the grateful appreciation of the Filipino people for your prompt approval of the bill authorizing $1.5 million as the contribution of the U.S. Government toward the construction of the war memorial on Corregidor Island. This memorial will stand as an enduring monument to Filipino-American friendship and the historic ties that bind our two countries together in peace as in war. In agreeing to build this great memorial together, our two countries have once again, after a score of years, made of record their common resolve to live by the ideals that we tested upon the indestructible rock of Corregidor. My warmest greetings and best wishes for this New Year.

(Signed) MACAPAGAL.

APPRECIATION TO ASSOCIATES AND STAFF MEMBERS

I am accompanied by Capt. Samuel G. Kelly, U.S. Navy, retired, who has been acting as Executive Director without compensation. And I am also accompanied by Mr. V. P. Miller, Director of the Budget Service of the Veterans' Administration and the members of his staff. We will try to answer any questions you might have regarding this budget request.

I would be very glad to answer any questions and explain any more about the memorial if anyone desires an explanation.

Senator BIBLE. Thank you very much, Mr. O'Neal.

First, I want to thank you and Captain Kelly and the others around you for this noncompensated service that you are performing. This is a splendid statement. It is outlined very fully.

The appendix to Mr. O'Neal's statement will be incorporated at this point in the record.

(The appendix referred to follows:)

THE CORREGIDOR-BATAAN MEMORIAL COMMISSION

TASKS REQUIRED BY PUBLIC LAW 88–240 AND PREVIOUS LAWS

Task 1. To develop a study (the Memorial Study) in cooperation with the Philippine National Shrines Commission for the location and erection of the memorial components described in subparagraph "i" of Public Law 88–240. This study will include—

(*a*) The site location of the twin flagpoles, and their height, size, material, and design.

(*b*) The site location of the building, or buildings, for use as an auditorium and tourist center; and the dimensions, style and design, and the interior arrangements and furnishings.

(*c*) The site and boundaries of the contiguous battlefield park with the locations of its walkways and roadways to the various points of historical interest.

(*d*) Determination of the location of historic markers and inscriptions thereon.

(*e*) Determination of the class of war mementos and their location in the battlefield park.

Task 2. To reach agreement with the Philippine National Shrines Commission formalizing the points in the Memorial Study mutually acceptable to both Commissions. The Memorial Study will be a document which will be submitted to the Philippine National Shrines Commission for comment and eventual approval, and will thus comply with the requirement of paragraph (c) of Public Law 298 (84th Cong.) "to decide after consultation with a similar commission in the Philippines, as to the type of memorial, including all structures, repairs, roads, and improvements on Corregidor Island."

Task 3. To prepare policy directives to the Veterans' Administration which will include those parts of the Memorial Study, as well as other additional matters,

to enable the VA to carry out all phases of the authorized construction. Such directives will include, but not be limited to—

(*a*) Exact boundaries of the battlefield park area plus the exact location of all buildings and flagpoles.

(*b*) Preliminary drawings and final blueprints required for the authorized construction.

(*c*) Preliminary drawings of murals, paintings, and statuary as may be approved by the Commission for inclusion in the memorial project.

(*d*) Specific items to the VA include—

1. Assume general administrative and technical responsibility for construction of the memorial project.
2. Administer funds appropriated for the project in accordance with policies established by the Commission and agreed to by the VA.
3. Assist the Commission in developing preliminary requirements to permit negotiation of an A/E (architectural engineer) contract.
4. Negotiate and contract with the recommended A/E firm to perform necessary architectural services.
5. Assist the Commission and the A/E in developing preliminary plans for the memorial project.
6. Have any necessary topographic and subsurface surveys performed by contract based on proposals by qualified firms or request A/E to have this performed on a reimbursable basis.
7. Supervise and assist in the preparation of working drawings by arranging for and participating in intermediate and final review.
8. Authorize the architectural engineer to print the necessary working drawings.
9. Determine method of bidding procedures.
10. Open bids, evaluate and award construction contracts.
11. Supervise construction by having resident engineer on the site with necessary technical assistance from architectural engineer.
12. Make such changes during construction as required by special site conditions and requested by Commission.
13. Make final inspection of work in conjunction with architectural engineer.
14. Make necessary payments to architectural engineer and contractors as provided in their contracts.
15. Maintain liaison with Commission and make periodic and final accounting for appropriated funds.

Task 4. Carry out liaison with the VA during all phases of the memorial construction to insure that VA will obtain necessary policy guidance as it may request.

Task 5. Arrange, in cooperation with the Philippines National Shrine Commission for the selection and procurement of specific war mementos, and the preparation of documentary films which will depict the major historical events of the Pacific war as well as a film which will tell the story of Bataan and Corregidor.

Task 6. To arrange, in cooperation with the Philippines National Shrines Commission, appropriate dedication ceremonies for the completed memorial project, including preparation of a list of U.S. representatives to attend such ceremonies.

Task 7. To prepare the final report of the Corregidor-Bataan Memorial Commission as required by Public Law 193 (83d Cong.) and to transfer all records of the Commission to the National Archives.

### Prior Appropriations

Senator Bible. I have just a few questions.

I note from your justifications that $100,000 has been appropriated to the Commission prior to this time. Would you please insert in the record a statement showing the fiscal years in which prior appropriations have been made, indicating the public laws and the amounts for each of the years.

Captain Kelly. Yes, sir; we will do that.

Senator Bible. Thank you, Captain Kelly.

(The statement referred to follows:)

STATEMENT OF PRIOR APPROPRIATIONS AND EXPENDITURES

| | |
|---|---|
| Fiscal year 1956 appropriation (Public Law 533, 84th Cong.) | $56,000.00 |
| Fiscal year 1957: Returned to U.S. Treasury | 2,141.77 |
| Net expenditures | 53,853.23 |
| Fiscal year 1958 appropriation (Public Law 85-48) | 44,000.00 |
| Fiscal year 1958: Returned to U.S. Treasury | 17,563.20 |
| Net expenditures | 26,436.80 |
| Fiscal year 1959: Continuing resolution for expenses (to Aug. 30, 1958) (Public Law 85-472, Public Law 85-572) | 4,433.04 |
| Net expenditures | 4,433.04 |
| Present authorization: Public Law 85-556 increased the original authorization of $100,000 to $200,000. Of the 2d $100,000 there now remains | 95,566.96 |

NOTE.—Careful budgeting of the Commission's expenses resulted in returning to the U.S. Treasury $19,704.97 out of the total appropriated amount of $104,433.04.

EXISTENCE OF THE COMMISSION

Senator BIBLE. How long has the Commission been in existence?

Captain KELLY. Since 1953. In the first 3 years, very little progress was made until an appropriation was made in fiscal year 1957.

Senator BIBLE. How many permanent personnel are assigned to the Commission?

Captain KELLY. Two, sir.

ROLE OF VETERANS' ADMINISTRATION

Senator BIBLE. And Mr. O'Neal has covered this I think partly, in telling us about the role of the Veterans' Administration in the planning and construction of this memorial. Now, does this mean that it is the Commission which will arrange for the planning and designing and perhaps will negotiate a construction contract?

DESIGN OF MEMORIAL PROJECT

Captain KELLY. No, sir. The Commission will come up with a design—an artist's concept—of what the final memorial project will look like. This design, Mr. Chairman, will have to be approved by the members of the Corregidor-Bataan Memorial Commission, and it will also, as required by law, have to be accepted by the Philippine National Shrines Commission.

When these two bodies are in agreement as to the artist's concept, or rendition, of what the memorial project will look like, we will then turn this design over to the Veterans' Administration and they will proceed to carry out all phases of the construction, including the invitation for bids and the letting of contracts.

PLANNING AND TECHNICAL SERVICES COST

Senator BIBLE. As I understand Mr. O'Neal's statement here, the total overall price tag of the U.S. Government was $1,500,000.

Captain KELLY. That is correct.

Senator BIBLE. But of that, at this time, you are asking only for $160,000 for planning and technical services?

Captain KELLY. That is correct.

Senator BIBLE. Now, who performs those planning and technical services?

Captain KELLY. The initial step, which I have outlined, will be performed by the Commission, under the budget request that you have before you. This artist's design is not really a construction plan, Senator . From this artist's concept, the Veterans' Administration will develop further the preliminary blueprints and the actual construction plans.

TYPE OF MEMORIAL

Senator BIBLE. Do you have any idea at this time of the type of memorial to be constructed?

Captain KELLY. Only as indicated in Public Law 88-240, which says that it will be a battlefield type, similar to Gettysburg. It must have a building. It must have an area of about 15 to 20 acres on top of Corregidor. It must have the two flagpoles flying the flag of the United States and that of the Philippine Government. There will be an auditorium, a tourist rest center. The same building can easily accommodate records of the Pacific war, which the Filipinos now have.

Mr. O'NEAL. The building will also have a fireproof library, which is not found in the Philippines, to keep the records pertaining to the war and also a place in which the memorabilia of the war may be preserved. They are very loosely kept, and little of them have been gathered. We hope that much will be done along that line.

COST OF THE MEMORIAL PROJECT

Senator BIBLE. How much do you foresee as the total cost of the memorial? Do I understand this is approximately $3 million?

Captain KELLY. No, sir. Our limit is a million and a half.

Senator BIBLE. I mean the total cost.

Captain KELLY. That will be the total cost of the U.S. effort. The Filipinos on their own, have used 4 million pesos and they are now actively engaged in cleaning up the Manila Tunnel.

Mr. O'NEAL. We have an authorization unused of $100,000, which would increase the amount from $1,500,000 to $1,600,000, with another that we have already used of $100,000, making a total effort of $1,700,000.

Captain KELLY. Not more than that. And we hope it will be perhaps under that, sir.

Senator BIBLE. And the United States then, in your opinion, will not be asked to contribute more?

Captain KELLY. That is correct.

Senator BIBLE. Is there a ceiling in the legislation?

Captain KELLY. Yes sir; $1.5 million.

Senator BIBLE. A million and a half is all that you can expend?

Captain KELLY. Yes, sir. In addition, as Mr. O'Neal stated, we have an unused authorization of $100,000—$95,000 to be exact—for the expenses of the Commission.

Senator BIBLE. That can be used toward the memorial under the law?

Captain KELLY. No, sir. This will be for the expenses of the Commission. It will just barely stretch to 1967.

Senator BIBLE. And does this have to be completed by 1967?

EXPIRATION OF THE COMMISSION

Captain KELLY. The Commission's functions. Yes, sir. The Commission goes out of existence in 1967.

Senator BIBLE. Does the memorial have to be completed by then?

Captain KELLY. No, sir. It does not. There is no limiting date on construction.

Senator BIBLE. The functions of the Commission expire by law in 1967?

Captain KELLY. Yes, sir.

Mr. O'NEAL. That makes it so important for us to get started. They put the limitation in the bill and Captain Kelly prepared a schedule whereby we have to hurry, and we have to get some money to start on soon in order to complete by 1967.

TIME FOR PREPARATION AND CONSTRUCTION

Senator BIBLE. There is a period of about 13 months of preparation, is there not, Captain?

Captain KELLY. Yes, sir; and 22 months for construction. We are a half-year behind now, Senator.

Mr. O'NEAL. The Veterans' Administration would require a great deal of time to do the construction. So we must make all the speed we can.

Senator BIBLE. Mr. Chairman?

COMBINED COST OF MEMORIAL PROJECT

Senator HAYDEN. Just what will be the cost combined from the two Governments of the construction on Corregidor?

Captain KELLY. The U.S. cost, Senator Hayden, will total not more than $1,700,000. This is including the modest sums already spent. That will be for the American part of the project on the topside of Corregidor. The Filipino Government has authorized 4 million pesos which roughly is equal to our $1.7 million. They may spend more, but they have authorized that much, and they are now doing the work. And unhappily, they are ahead of us.

Senator BIBLE. We, of course, have a very distinguished colleague of ours that serves on this Commission.

Senator McGee, do you have anything you would like to ask?

MEMORIAL PROJECT SITE ORIGINALLY IN STATE OF NEGLECT

Senator McGEE. I would like to make one or two observations, Mr. Chairman: The first is, that I had my first and only chance to see the island just a year ago. Those on my committee were shocked at the state of neglect, of near abandonment, of the entire area. And we were shocked, not because we intend to maintain all the battlefields of the world in some rehabilitated form, but because if any place epitomized one of the great shrines for freedom around the world, it surely was Corregidor and Bataan.

In terms of our own national history, it would be likened, I would think, internationally, to our Bunker Hill or our Valley Forge, that we have preserved. And yet it has been surrendered to the snakes and the rapidly growing jungle undergrowth in general.

It was a great shock that so soon a people could forget.

COORDINATION BETWEEN PHILIPPINE AND U.S. GOVERNMENTS

When I learned more of the details; namely, about how difficult it had been to get the two governments to coordinate, just because of indifference—people who did not care, who thought they could do this next year or the following year, or by 1967, it became obvious that anything we could do to bring this to a head would be very helpful.

PHILIPPINE GOVERNMENT CONTRIBUTION

The Philippine Government, I think it is fair to say, has already spent a substantial sum of money on it, by borrowing from the labor of the bureaus in the Philippine Government, by getting volunteer groups to participate in other ways, so that they have gotten some of the area cleared.

But as yet, there has been no systematic approach to the creation of the kind of memorial that is needed there.

Mr. O'NEAL. Senator, may I mention one thing there? We have not mentioned this fact at all, but the contribution of the Philippines is implied by the fact that they have set aside Corregidor, an island 3½ miles at its widest and longest points. If it were to be used otherwise than as a memorial, if it were to be used for commercial purposes, I do not believe it is too much to evaluate Corregidor itself as a commercial enterprise would be worth $3½ million. And the Philippines are putting that in, in addition to this authorization of 4 million pesos.

Senator MCGEE. The fact that they are willing to go along with this now, I think, is of some considerable merit. Because what it does suggest is that this is not another white man's colonial enterprise, but symbolizes the standing together of these two peoples.

The pace at which we are going still disturbs me. I still think we are going much too slowly.

PARTICIPATION OF U.S. PATRIOTIC ORGANIZATIONS

I do think that we have failed likewise to utilize the resources available to us through some of our patriotic organizations in this country; I mean on a large scale. Such other embellishments of the memorial that our experience may recommend, I think, ought to lead us toward persuading the Veterans of Foreign Wars, the American Legion, and other patriotic groups, through their own solicitations and participation, to contribute to the development of this area in its most desirable way. I think we have been neglecting this aspect.

However, I would not detract from the importance of our putting in these appropriations. I think this is necessary. This is the hard part of it, in order to get the basic design going, the ground cleared and the basic concept of a memorial, that will come into being.

PARTICIPATION OF INDIVIDUAL AMERICANS

There is much more to be done there than just that phase of the memorial. I think there is a great deal to be done there if we could get the participation of a lot of individual Americans for strictly patriotic and commemorative reasons to join in on this with us, and I would hope that that would be possible.

Captain KELLY. Senator, you are familiar with the fact that our recent legislative act, Public Law 88–240, provides for just what you have been saying, that there is no bar to the Commission going out and amplifying the plans called for under the act in a much grander and more inspiring way by getting public subscriptions.

Senator MCGEE. Yes. What has disturbed me is that there has been no really organized effort to do that. I think time is running out. I think we ought to get going on it. Again, the memory of people is distressingly short. That is all I have to say, Mr. Chairman.

Thank you very much.

### TIMETABLE FOR MEMORIAL PROJECT

Senator BIBLE. Do you have any timetable, Mr. O'Neal or Captain Kelly, assuming you get the money—and I cannot see any problem on that—I should think the Congress would readily make this money available to you at the earliest possible moment; certainly, that would be my position—as to when you would complete your design? What are we talking about? A year?

Captain KELLY. No, sir. Senator, if funds are made available in the supplemental, and that becomes effective on the first of June, it will take us from 6 to 8 months to get this design and get the approval of the two Commissions. So that, say, 8 months from now I can walk into Mr. Schweickart, here, and say, "This is the approved picture of what we want."

They estimate it might well be 22 months, to let the contracts and get the work completed. So we have 22 and 8, 30 months.

Senator BIBLE. 2½ years.

Captain KELLY. The target date we are shooting for is February 16, 1967, which is the 22d anniversary of the recapture of Corregidor Island. It seems to be a very appropriate date for our ribbon-cutting ceremonies. And if we can start on this in June or July, I feel sure that this can be carried out.

Senator BIBLE. I would certainly hope the money was made available to you before that. I think this year, as we are moving along, under the guidance of the Chairman of the Appropriations Committee, he is going to complete all of his hearings in 4 more days. So we are ready to move.

### APPROVAL FOR DESIGN

Now, when you speak of the two Commissions, I am not clear on that. The design takes the approval of the American Commission and the Philippine Commission?

Captain KELLY. Yes, sir, and the acceptance. The Philippine Commission cannot veto it, but they have to agree to it.

Senator BIBLE. If they do not accept it, then what do you do?

Captain KELLY. We find that they are very cooperative, and I am sure they will take any reasonable design.

### PHILIPPINE SHRINE COMMISSION

Mr. O'NEAL. Senator, when the Philippine Shrine Commission was organized, the American Commission at once contacted the Philippine Government, and the President appointed a Philippine

Shrines Commission to work on Corregidor with us. And they came over to this country. We had conferences. And they saw the design that we had originally. We had a design that was chosen after a competition of 41 architects. But the Federal Government, in the recent law, chose to reduce it to a million and a half from the seven and a half.

So we had to start over again.

### Philippine Interest in the Memorial Project

But they not only created this Commission, for the distinct purpose of conferring with us, but then set aside Corregidor for this purpose and there is a tremendous amount of interest in this, not only in the Philippines—I think everybody in the Philippines has been tremendously interested—but many, many thousands of people in this country too.

There is nothing to be gained by lamenting the time that has been taken thus far. There were many reasons for it, many trials that we ran into, and other things. But the fact is that we are in a position now to do the job and do it properly, and in a manner that will be a credit to the United States. And if we get the money, I think we can do it promptly.

Senator Bible. Thank you very much, Mr. O'Neal.

You say you can do this in three and a half years; so I think you have a little margin.

Thank you very much.

We will be in recess until 10 o'clock tomorrow morning.

(Whereupon, at 12:35 p.m., Monday, March 2, 1964, a recess was taken until 10 a.m., Tuesday, March 3, 1964.)

# DEPARTMENT OF INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1965

TUESDAY, MARCH 3, 1964

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, D.C.*

The subcommittee met at 10 a.m., pursuant to recess, in room 1223 New Senate Office Building, Hon. Alan Bible temporarily presiding.

Present: Chairman Hayden, Senators Bible and Bartlett.

## NATIONAL CAPITAL PLANNING COMMISSION

### STATEMENT OF MRS. JAMES H. ROWE, JR., CHAIRMAN, NATIONAL CAPITAL PLANNING COMMISSION; ACCOMPANIED BY W. C. DUTTON, JR., DIRECTOR; CHARLES H. CONRAD, DEPUTY DIRECTOR; MISS MARY R. SMALL, SPECIAL ASSISTANT FOR COMMUNITY RELATIONS; DANIEL H. SHEAR, GENERAL COUNSEL AND SECRETARY; JOHN R. PRITCHARD, ASSISTANT DIRECTOR (ADMINISTRATION); JOHN K. PICKENS, CHAIRMAN, NATIONAL CAPITAL REGIONAL PLANNING COUNCIL; AND G. LOUIS HELLER, DIRECTOR, NATIONAL CAPITAL REGIONAL PLANNING COUNCIL

### 1965 BUDGET REQUEST

Senator BIBLE. The subcommittee will be in order.

The first hearing this morning will be on the presentation of the National Capital Planning Commission. We have with us today Mrs. Rowe, the Chairman of the Commission; Mr. W. C. Dutton, Jr., the Director; Mr. Conrad, the Deputy Director; Miss Small, Special Assistant for Community Relations; Mr. Shear, General Counsel and Secretary; Mr. Pritchard, the Assistant Director (Administration); Mr. John K. Pickens, Chairman, National Capital Regional Planning Council; and Mr. G. Louis Heller, Director, National Capital Regional Planning Council.

For fiscal year 1965 the National Capital Planning Commission requests an appropriation of $774,000, all for salaries and expenses. This is $124,000 more than the amount appropriated in fiscal year 1964, which included $75,000 for the Pennsylvania Avenue study, a nonrecurring item. Therefore, in effect, there is an increase of $199,000 requested in the coming fiscal year.

The justifications for this budget proposal will be printed in the record.

(The justification statement referred to follows:)

*Justification statement*

| | Commission | Council | Total |
|---|---|---|---|
| Allowed, fiscal year 1964: Salaries and expenses appropriation | $554,700 | $95,300 | $650,000 |
| Deduct nonrecurring items in fiscal year 1964 budget (Pennsylvania Avenue study) | −75,000 | | −75,000 |
| Adjusted base, fiscal year 1965 | 479,700 | 95,300 | 575,000 |
| Increases proposed for fiscal year 1965: | | | |
| Pay increase costs under Public Law 87-793 | 7,600 | 2,400 | 10,000 |
| Increased travel costs, new Commission member | 3,600 | | 3,600 |
| Other travel cost increases | 1,000 | | 1,000 |
| Publication of 1985 plan and other publications | 20,000 | 3,000 | 23,000 |
| Completion of industrial survey | 10,000 | | 10,000 |
| Increased costs for telephone system | 4,500 | 500 | 5,000 |
| Permanent positions (see attached list) | 62,815 | 19,905 | 82,720 |
| Reallocation of permanent positions (see attached) | 7,065 | 5,640 | 12,705 |
| Seasonal positions | | 3,000 | 3,000 |
| Experts and consultants | 25,000 | 3,000 | 28,000 |
| Cost of personnel benefits related to above personnel increases | 6,500 | 2,500 | 9,000 |
| Supplies, materials, and contingencies | 4,975 | 1,000 | 5,975 |
| Statistics and data processing | 4,000 | 1,000 | 5,000 |
| Total increases requested | 157,055 | 41,945 | 199,000 |
| Total budget requested, salary and expense funds | 636,755 | 137,245 | 774,000 |

*Land acquisition, National Capital park, parkway, and playground system*

No additional funds requested for fiscal year 1965.

*New positions*

| Title and grade | Location | Salary |
|---|---|---|
| 1. Editorial and technical writing aid, GS-12 | Office of the Director | $9,980 |
| 2. Time, leave and payroll clerk, GS-5 | Administrative services | 5,170 |
| 3. Personnel management assistant, GS-7 | do | 5,795 |
| 4. Assistant highway planning engineer, GS-12 | Technical services | 9,980 |
| 5. Statistician, GS-9 | do | 7,030 |
| 6. Urban planner, GS-11 | Federal projects planning | 8,410 |
| 7. Clerk-stenographer, GS-5 [1] | do | 5,810 |
| 8. Urban planner, GS-12 | Urban renewal planning | 10,640 |
| Total, new positions, NCPC | | 62,815 |
| 9. Urban planner, GS-12 | Regional Council | 9,980 |
| 10. Stenographer, GS-6 | do | 5,235 |
| 11. Stenographer, GS-5 | do | 4,690 |
| Total new positions (3), Regional Council | | 19,905 |
| Grand total, new positions | | 82,720 |

[1] This position was authorized in fiscal year 1964 by transfer from the land acquisition appropriation but funds were not allowed. This is a request for funds, leaving a net increase of 7 new positions for NCPC, 3 for NCRPC, and 10 in total.

| | Permanent positions | | |
|---|---|---|---|
| | Fiscal year 1964 | Increase | Fiscal year 1965 |
| National Capital Planning Commission | 38 | 7 | 45 |
| National Capital Regional Planning Council | [1] 8 | 3 | [1] 11 |
| Totals | [2] 46 | 10 | 56 |

[1] Excludes attorney position financed from these funds but which is carried on organization chart under Legal Services Division of NCPC.

[2] Excludes 2 permanent positions under Pennsylvania Avenue project which were authorized for fiscal year 1964 only.

*Reallocated positions*

| Title and grades | Location | Increase |
|---|---|---|
| 1. Chief of Advanced Planning, GS–13 to GS–14 | Comprehensive planning | $1,890 |
| 2. Social science analyst, GS–7 to urban planner, GS–9 | do | 1,235 |
| 3. General counsel, GS–14 to GS–15 | Legal services | 2,050 |
| 4. Economist, GS–13 to GS–14 | Technical services | 1,890 |
| Total, NCPC (4) | | 7,065 |
| 5. Secretary, GS–6 to GS–7 | Regional Council | 560 |
| 6. Cartographic comp. aid, GS–6 GS–7 | do | 560 |
| 7. Urban planner, GS–11 to GS–12 | do | 1,570 |
| 8. Urban planner, GS–11 to GS–12 | do | 1,570 |
| 9. Attorney, GS–9 to GS–11 | do | 1,380 |
| Total, Regional Council (5) | | 5,640 |
| Grand total (9) | | 12,705 |

## Program and Performance

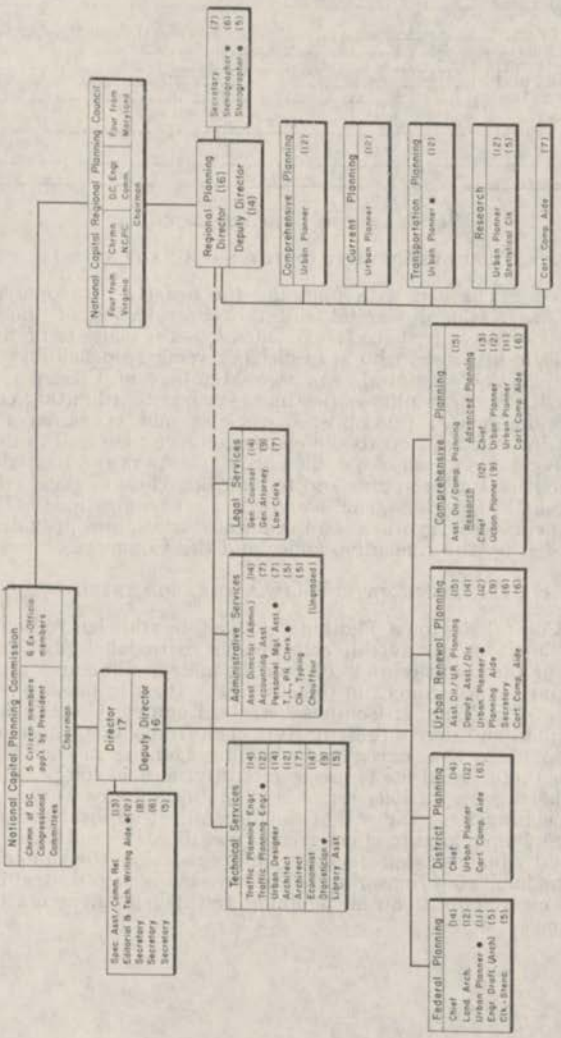
### PLANNING DEVELOPMENT OF THE NATIONAL CAPITAL

The Commission is charged with planning the orderly development and redevelopment of the National Capital and the conservation of the important natural and historic features thereof. Its membership consists of five private citizens, six ex-officio members who are officials having responsibility in the development of the Nation's Capital, and two Members of Congress. Through monthly Commission and committee meetings, various coordinating committees, and participation in special programs, it reviews and coordinates numerous programs and projects in relation to the comprehensive plan and desirable planning practices. It retains a staff of qualified urban planners and related specialists to carry out its policies and programs and to maintain close working relationships with many Federal and District agencies and citizens organizations. It contracts with District agencies to carry out urban renewal studies, and provides planning services as requested by the Executive Office and the Congress.

### COORDINATING METROPOLITAN AREA PLANNING

The National Capital Regional Planning Council, in addition to being charged with the development of an overall comprehensive regional plan, coordinates planning in and for the counties and cities of the metropolitan area together with that of the Federal Establishment in the suburbs. Its membership is composed of the Chairman of the Planning Commission, the Engineer Commissioner of the District of Columbia, and four representatives each from Maryland and Virginia, who are nominated from the subregional planning agencies in each State. The Council retains a professional staff, meets monthly, and is composed of several committees specializing in various regional planning spheres and aspects. Its Director chairs a committee composed of the directors of all local and subregional planning agencies of the region to effect greater coordination and liaison. Within the limits imposed by budget, staff, facilities, and legislation, the Council attempts to function as a regional coordinator and catalyst serving as a central intelligence organization and clearinghouse on all planning and development matters having regional significance.

STAFF ORGANIZATION FOR PLANNING IN THE NATIONAL CAPITAL REGION
Fiscal Year 1965



## General Introduction and Role of Planning Commission

### POLICYMAKING BODY

The Commission is an active policymaking body composed of 13 members and 12 designated alternates. It meets 11 times in regular sessions throughout the year. There are five regular committees which meet prior to regular Commission meetings, and two special committees. These meetings average a total of 16 to 20 hours during the first week of each month.

In accordance with the National Capital Planning Act of 1952, the District of Columbia Redevelopment Act of 1945, as amended, and various other acts of Congress, the Planning Commission serves two basic responsibilities. It acts as the planning body for the District of Columbia and represents the Federal interest in the National Capital region.

The Commission strives to execute these functions in the preparation of plans in accordance with law and in continuing efforts to obtain decisions and actions reflecting those plans.

As an agency primarily involved in providing technical and professional services, and establishing policy objectives to be sought, the results of the Commission's efforts are a direct function of the personal and technical resources made available to it. The following describes present and proposed programs of the Commission.

### PROFESSIONAL STAFF

The Commission employs a professional staff to prepare for and maintain records of its meetings, carry out general and special planning studies, prepare background information and recommendations on matters which are to come before the Commission, and carry out policies and instructions of the Commission. The staff participates actively in many coordinating groups, maintains liaison with numerous official agencies, and conducts an active community relations program in order to carry out the Commission's program.

### EXPANSION AND REORGANIZATION

A general expansion and reorganization of the Commission's staff took place in fiscal year 1960. The reorganization generally was consistent with the proposals of an organizational and classification study made by the Civil Service Commission in fiscal year 1956. Subsequently, a three-phased effort for advancing the comprehensive planning program for the District and the Federal Government in the region was undertaken.

The first phase was the development of a series of policy proposals for future development of the National Capital region, the District, and metrocenter, in conjunction with the National Capital Regional Planning Council. These proposals were presented in the year 2000 plan. These policies are now being followed in evaluating proposals for various Federal activities in the region. Special studies as to the implications of these policies for Federal responsibility as to development of facilities in the region are to be started in fiscal year 1964 and will be carried on to fiscal year 1965.

The second phase has been initiated in the preparation of a comprehensive plan designed to meet the needs of the District in the year 1985. This plan will revise outdated previous plans and will meet the specifications called for in the National Capital Planning Act of 1952, under the section, "Comprehensive Plan for the National Capital." In the interim, the District of Columbia Commissioners have initiated a major study of urban renewal needs under the new community renewal program. The Commission has contracted to undertake major renewal planning studies and is coordinating these with the 1985 comprehensive plan studies.

A third phase will begin during fiscal year 1965 when both the 1985 comprehensive plan and the community renewal program recommendations have been released. It is anticipated that new programing and review techniques will be needed to insure the carrying out of planning objectives in the public works program of the District of Columbia, and the variation in approaches to urban renewal that can be expected. It also is to be anticipated the new proposals will be forthcoming for the programing of construction of new Federal facilities for the region. Comprehensive studies will be extended to a smaller (neighborhood) area, working with citizens groups, in order to translate plan objectives into specific private investment opportunities and proposals for precise public works.

COMMISSION PROGRAM OBJECTIVES FOR 1965

The Commission has the following major program objectives for fiscal year 1965, not to exclude other types of activities described elsewhere.

Continue Federal and District planning activities under responsibilities assigned by 1952 act.

Continue to undertake urban renewal planning.

Issue a comprehensive plan for the year 1985, combining a general plan proposal with a 20-year development (public and private investment) program.

Complete the physical planning aspects of a community renewal program, under a contract with the District of Columbia Commissioners, but supervised by the regular staff and coordinated with the comprehensive plan.

Establish a continuing comprehensive planning process which will update the comprehensive plan and development program every 5 years. This reformulation is seen to be necessary as a result of changes expected to take place as the urban growth of the region continues and the Federal establishment changes.

Maintain close liaison with executive agencies to insure development programs that are consistent with the comprehensive plan.

Special studies as are assigned or become necessary.

PROFESSIONAL PROGRAM ACTIVITIES

The professional program activities of the Commission are classified into three broad areas for administrative and budgeting purposes. They are Office of the Director, four planning divisions, and technical services.

OFFICE OF THE DIRECTOR

*General*

The staff activities of the Commission are directed by professional urban planners. A Director, Deputy Director, and several assistants (community relations, General Counsel, and administration), constitute the supervisory personnel of the Director's Office. The Director is responsible for all administrative functions, not specifically reserved for the Chairman as head of the agency, and for all professional work of the staff.

This Office formulates policy proposals to present to the Commission, represents the Commission in carrying out its policies and programs, and supervises, coordinates, and reviews the work of the staff. This Office provides staff leadership and direction to insure that the professional program is providing appropriate leadership to the community in urban planning and urban design.

Through the membership of the Commission itself, basic coordination is achieved with six Federal and District agencies having development programs in the District and the National Capital region. These agencies are the District of Columbia Engineer Commissioner's Office, National Capital Transportation Agency, Public Buildings Service of General Services Administration, National Park Service, Bureau of Public Roads, and Corps of Engineers. Other staff liaison and coordination is carried on through numbers of coordinating committees and special representations.

Liaison is maintained with the general public and community through a program of dissemination of information through the news media, mailings to citywide and neighborhood civic organizations, and presentations to groups when invited.

Full administrative and legal responsibilities are executed by the Commission as a separate Federal agency, through this Office.

Special projects are undertaken by this Office as they are assigned to the agency or liaison and assistance is requested. It is anticipated that these will increase in number as long as the present tempo of change and rebuilding continues in the District.

Administrative services are rendered to other programs besides the professional staff of the Planning Commission and Regional Planning Council. In fiscal years 1963 and 1964 these included the Pennsylvania Avenue Advisory Council, regional open space study, and land acquisition, including the site for the National Cultural Center.

In fiscal year 1964, the Director's Office was assigned 13 positions; for program direction, community relations and liaison, and legal and administrative services. The salaries for these positions, including all benefits established by law, totaled approximately $131,000 or 34 percent of the total personnel compensation and benefits.

*Legal services, Commission secretariat*

The Office of the General Counsel and secretary performs six basic activities for the Commission:

(*a*) Services as official secretariat for the Commission and its several committees at their monthly meetings, preparing meeting notices, agendas, and forms of resolutions and other actions, and maintaining official meeting records.

(*b*) Provides legal services on matters of agency administration, such as general administration, personnel, and procurement.

(*c*) Provides legal advice in the interpretation of the role and functions of the Commission and the Regional Planning Council under the several statutes extending authority and responsibility to these agencies.

(*d*) Provides legal advice on substantive questions involved in planning, urban renewal, etc., including advising on appropriate measures that may be developed to assist in the effectuation of comprehensive plans.

(*e*) Serves as legislative counsel in participating in review of proposed legislation coming under the Commission's purview, in the preparation of congressional testimony, and in statutory drafting, including aiding upon request in special projects of the Executive Office.

(*f*) Provides legal and related services for the land acquisition programs of the Commission, including the procuring of title evidence, appraisals, and conveyancing and the preparation of materials for submission to the Department of Justice in condemnation proceedings.

*Administration*

As an independent agency, all duties and functions required of a Federal agency are carried out by its own staff. Thus, personnel is required to administer financial and budget management, personnel, payroll, records and space management, property records and accountability, and general administrative routine. Most procurement is handled within the agency, with assistance from General Services Administration on major contracts.

Consideration will be given to possible economies that would be obtained by contracting for such services with other agencies. It is presently believed, however, that the agency is able to perform its functions more efficiently by having its own staff immediately available to process needed actions and subject to direct supervision.

In addition to the program and personnel authorized in regular salary and expenses, administrative services are provided to special projects such as urban renewal project contract studies, the Pennsylvania Avenue Advisory Council and its special staff, and others that arise from time to time. At the beginning of fiscal year 1964, 70 permanent and temporary employees were included in administration, with a turnover expected during the year customary to this type of agency. Some of the administrative overhead has been met by assigning personnel as required from special projects to administrative services. The Assistant Director (Administration) is expected to be an authority on and is assigned responsibility to carry out such Federal responsibilities as administrative officer, budget officer, finance officer, authorized certifying officer, personnel officer, procurement officer, property and supply officer, retirement officer, insurance officer, health benefits officer, and is designated as agency incentive awards administrator and secretary of the incentive awards committee.

The remainder of the staff consists primarily of professionals in urban planning and related fields, without specific administrative background and generally without background knowledge of Federal Government procedures, rules, and regulations. In order to gain maximum utilization of their special talents, administration is centralized.

Additional staff is needed to insure proper personnel functioning within regulations and procedures, as represented by the new "Federal Personnel Manual" and because the agency employs personnel in a very specialized field, with characteristic rapid turnover in shortage professions.

*Community relations*

Proper communication about the work of the Commission with the news media, neighborhood and citywide civic groups, interested citizens, visiting foreigners interested in city growth and planning, and in response to written requests from citizens across the country is coordinated by the special assistant for community relations. Numerous presentations and speeches are made by members of the Commission and the staff describing the planning problems and proposals of the agency. Assistance in developing resource material and contacting resource persons is given to writers and producers of significant national programs about Washington.

*Editorials and technical writing*

The responsibility to communicate the Commission's program and policies more effectively to the public and community than in the past leads to the need for more effective writing and editing of planning reports and documents. Although this service could be contracted for, there is sufficient demand for it to indicate savings in having a qualified staff person available full time. Such activity would contribute to the work of the planning divisions and would be coordinated with community relations work.

This talent is needed particularly with respect to the writing for the comprehensive plan for the year 1985, supporting documents, annual reports of planning progress within the District and Capital Region, and to assist with special projects.

COMPREHENSIVE PLANNING DIVISION

The development and publication of the 1985 comprehensive plan for the District of Columbia, initiated in fiscal year 1962, is scheduled for completion within fiscal year 1965. An intensive program of study is underway of neighborhood and community areas, and of needs in facilities and services in such "systems" as schools, play spaces, libraries, fire and police stations, utilities, etc. A major effort will be made to present problems that have been identified and that are proposed solutions to neighborhood groups as well as to District-wide civic organizations. A review process also will be followed with all affected District and Federal agencies concerned with physical development. This will be done at such time as to permit review and analysis of suggestions received for possible incorporation into Commission-adopted plans.

As this plan is being formulated, it is building upon significant findings of the series of area studies and is responding to the potentials unique to each section of the District. During fiscal year 1963, special emphasis was given to the areas having a high potential for improvement in character of development during the next two decades. This change is expected to result from private investment and intensive renewal by both public and private actions. These areas include the downtown business district and the older in-town residential sections immediately to the north and east of the downtown area. During fiscal year 1964, comprehensive analyses will be made of the needs of the more outlying, and more stable, residential sections within the District. Special studies are underway in connection with industrial and commercial area needs and their future development consistent with planning principles and objectives. Culmination of this process of formulating land use objectives for all of the District will be in the form of a plan for recommended use of land to be achieved by the year 1985 and will represent a major element of the comprehensive plan. As a statement of objectives to be achieved by the District by 1985, the plan will be an application and testing of the basic development policies proposed for the District and metrocenter in the year 2000 plan.

The 1985 plan also will propose a 20-year development program for the District. This program will consist of proposals for basic renewal strategy (public and private), standards established for systems of public facilities throughout the city, and presentation of financial priorities to permit carrying out of the plan.

One of the key roles of this development program will be to serve as an essential basis for the orderly coordination of public works to be scheduled for the District of Columbia during the next two decades. As such, it will be initiating a process of long-range programing which will be continually subject to review and updating. Formulation of the initial 20-year development program objectives as are to be incorporated in the 1985 plan also is scheduled for compeltion within fiscal year 1965. The process of comprehensive planning will not cease with the publication of this plan. It is intended at present to review and reformulate the comprehensive plan and development program every 5 years. This is the only way to gain from the rapid changes that occur in our culture in such areas as technology, productivity, standards of living, and physical design.

This Division draws heavily upon other staff members of the Commission for assistance in special elements of the plan, such as federal employment centers, throughfare and transit proposals, urban design considerations, zoning change recommendations, etc.

In fiscal year 1964, 7 positions were allocated to this Division. The salaries or these positions, including benefits, totaled approximately $71,000, or 19 percent of the total personnel compensation and benefits.

## C. Urban Renewal Planning Division

The principal activities of the Urban Renewal Planning Division in the past year (fiscal year 1963), and the projected activities of the Division in fiscal years 1964 and 1965 fall into four major categories: (1) activities in connection with proposed modifications to previously approved urban renewal plans; (2) activities of a project planning nature involving the preparation of urban renewal plans for officially designated urban renewal areas in the District of Columbia supervised by the regular staff and carried out with separate staffs funded by special contracts; (3) activities involved in the review and study (and/or initiation and development) of proposals and recommendations for future possible urban renewal areas; and (4) activities relating to the Commission's responsibilities under the District of Columbia Alley Dwelling Act of 1934 for the review and approval of the general location and boundaries of proposed low-rent public housing developments of the National Capital Housing Authority.

### MODIFICATIONS IN ADOPTED AND APPROVED URBAN RENEWAL PLANS

*General*

The Division staff has a continuing responsibility and workload resulting from the consideration, review, and study (and/or the development of) proposed modifications in previously adopted and approved urban renewal plans. Official urban renewal plans exist for each of the following areas of the District of Columbia:

(*a*) Southwest B,
(*b*) Southwest C,
(*c*) Southwest C–1,
(*d*) Northeast No. 1, and
(*e*) Columbia Plaza

Frequent proposals for plan modifications originate from the Redevelopment Land Agency, property owners in the areas involved, potential redevelopers, the District of Columbia government, or from the Commission staff. Staff studies are involved in each case prior to presentation for the Commission's consideration of each such proposed modification.

*Southwest B, C, and C–1*

The staff of the Division processed four separate proposed modifications in these Southwest urban renewal projects for Commission adoption during fiscal year 1963. The major plan changes involved:

(1) A revised plan for the Southwest waterfront along the Washington Channel. This was developed in conjunction with the Redevelopment Land Agency and its consultant, the Washington Channel Waterfront Corp.;

(2) A revised plan for the development of f.o.b. No. 5 permitting the new building, to be located on Independence Avenue across from the Smithsonian Institution, to bridge the 10th Street Mall; and

(3) A revised plan for the 10th Street Mall in the vicinity of the proposed L'Enfant Plaza, affecting building heights, underground parking facilities, and the treatment of the plaza itself.

Additional staff activity is anticipated in connection with further modifications during fiscal years 1964 and 1965 although progressively less activity is expected by the end of fiscal year 1965 due to the anticipated completion of planning for these projects as construction plans are finalized.

*Proposed modification to the Northeast No. 1 urban renewal plan*

The Commission's staff, in conjunction with the Redevelopment Land Agency, initiated a series of proposed changes in this plan which were adopted by the Commission and have been under study by the District Commissioners during fiscal year 1963. The development of the proposed modifications and the subsequent negotiations were a major effort on the part of the Division's staff and the legal staff of the Commission. It is anticipated that these proposals will be approved by the Board of Commissioners early in fiscal year 1964. Little additional staff activity is anticipated in connection with this area during fiscal years 1964 and 1965 in view of the anticipated completion of planning for this project during that period.

*Columbia Plaza*

The staff of the Division processed a proposed modification to the Columbia Plaza urban renewal plan that was adopted by the Commission on October 25,

1962. This modification was approved by the Board of Commissioners on August 6, 1963. The proposed new development is expected to begin construction in fiscal year 1964.

PROJECT PLANNING ACTIVITIES IN CONNECTION WITH THE PREPARATION OF URBAN RENEWAL PLANS

The Commission, in cooperation with the District of Columbia Redevelopment Land Agency, prepares urban renewal plans for the approval of the Board of Commissioners of the District of Columbia government and for execution by the Redevelopment Land Agency. The preparation of these plans is done by special staff personnel recruited by the Commission for this purpose with funds provided by RLA under the provisions of the Housing Act of 1949, as amended. This work is carried out under the direction and supervision of the Irban Renewal planning Division.

*Adams-Morgan and Northwest No. 1*

The preparation of these two urban renewal plans was completed by the Division staff in fiscal year 1963. These activities were carried out in cooperation with, and funded by, the Redevelopment Land Agency. They involved the preparation of the Division staff of an urban renewal plan for each of the respective areas. Said plans were adopted by the Commission on January 10, 1963, and March 7, 1963, respectively. Review and approval of these plans by the Board of Commissioners of the District of Columbia government is anticipated in fiscal year 1964. Following the approval of the plans by the Urban Renewal Administration, the Redevelopment Land Agency will also begin to carry out these two plans in fiscal year 1964. Staff activities by the Division in fiscal years 1964 and 1965 in conjunction with the Adams-Morgan and Northwest No. 1 areas will probably be limited to the review and study of possible modifications in said plans resulting from the Redevelopment Land Agency's experiences in the execution of each plan.

*Anacostia-Bolling*

The initiation of project planning on this project was anticipated during fiscal year 1963. However, it was delayed pending a determination by the Department of Defense and the Bureau of the Budget of the limits of the area that was expected to be declared surplus to military needs and in which urban renewal planning studies should be carried out. This question has since been resolved and on July 18, 1963, the Commission adopted a modified urban renewal area boundary for the area. Early approval of same is anticipated by the District Commissioners and it is now anticipated that project planning activities will be initiated in the second half of fiscal year 1964. The Commission will carry out the various studies involved in the preparation of an urban renewal plan for this area under an agreement with, and under contract to (an estimated $127,000) the Redevelopment Land Agency under the provisions of the Housing Act of 1949, as amended. A special technical staff of five (three professionals and two subprofessionals) will be recruited by the Commission in fiscal year 1964 to undertake this 2-year program of work which is expected to be completed in fiscal year 1966—permitting formal adoption of said plan by the Commission and approval of same by the Board of Commissioners at that time.

REVIEW AND STUDY OF PROPOSED URBAN RENEWAL ACTIVITIES

The regular staff of the Division is also responsible for reviewing proposals for possible future urban renewal projects, for undertaking urban renewal feasibility studies and, within the framework of the 1985 comprehensive plan and community renewal program studies, initiating and recommending specific urban renewal proposals for consideration of the Commission and the District Commissioners. Studies of this nature in the past have been initiated by the Commission or have been undertaken in response to requests by the Office of Urban Renewal of the District of Columbia, the Redevelopment Land Agency, or other groups or institutions.

The activities of the Division's staff in regard to future urban renewal activities or programs in the District of Columbia fall into two categories—the broader citywide study of renewal needs under the community renewal program study and several potential urban renewal project proposals that are under study at this time.

*Community renewal program*

During the fiscal year 1963, the staff assisted the District's Office of Urban Renewal in the development of the community renewal program agreement by and between the District of Columbia government and the National Capital Planning Commission, whereby the Commission would assist the District in the preparation of a community renewal program for the Nation's Capital. This agreement was executed on May 23, 1963, and the Commission, with funds supplied under this agreement by the District government, has initiated efforts to recruit the special nine-man technical staff that will carry out this work over an anticipated period of about 2 years. Over this period of time, the Commission is to receive a total of $140,000 for this work under the provisions of the agreement with the District government. Preliminary staff studies on the community renewal program were begun fiscal year 1963. These will be carried out throughout fiscal year 1964 and are expected to be completed during fiscal year 1965. This work is being carried out in close coordination with the 1985 comprehensive plan studies of the Comprehensive Planning Division. This work will also be coordinated with related CRP activities and studies of various District agencies, the Redevelopment Land Agency, the National Capital Housing Authority, and others—under the direction of the District's Office of Urban Renewal. The work of this special staff will constitute a major technical contribution to the final recommendations to the District of Columbia government on a 20-year community renewal program for the Nation's Capital. Completion of these special studies is anticipated by the end of the first half of fiscal year 1965.

*Special area studies*

The Division staff has been involved in three special area studies during fiscal year 1963 in relationship to potential future urban renewal programs in these areas. They are:

(1) *Howard University.*—In fiscal year 1963, the staff of the Division, working with the District of Columbia Office of Urban Renewal, the Redevelopment Land Agency, and officials of Howard University, continued joint consideration of the feasibility of urban renewal activities to aid in the improvement of that section of the city in and around Howard University as a part of its campus development program. The feasibility of such assistance, under the provision of section 112 of the Housing Act of 1949, as amended, and the priority or scheduling of same relates to current studies by Howard University. These studies are expected to be completed, at least in preliminary form, during the first half of fiscal year 1964. If feasibility is indicated by these and other sutudies, it is anticipated that the staff will assist the Redevelopment Land Agency in the preparation of an urban renewal plan for a yet-to-be-identified area in this section of the city. If the Division is called upon to prepare the urban renewal plan for the Redevelopment Land Agency, a special staff of approximately four persons, funded by the Redevelopment Land Agency, would be required.

(2) *Downtown renewal.*—The staff, in conjunction with the Office of Urban Renewal of the District government, the Redevelopment Land Agency, and the staff of Downtown Progress (the National Capital Downtown Committee) has been meeting on a regular basis during fiscal year 1963 in a technical review and evaluation of the "action plan" for downtown Washington. In anticipation of the passage of a further congressional amendment to the District of Columbia Redevelopment Act of 1945, as amended, clearly establishing the eligibility of the downtown area for renewal, the staff has been assisting the above-named agencies in the evaluation and development of the planning proposals and development standards that would eventually be incorporated in an urban renewal plan for the downtown area. It is anticipated that these activities will continue during fiscal year 1964 as a part of broader studies being undertaken at this same time in conjunction with the 1985 comprehensive plan and the community renewal program described above. No additional special staff will be required on the part of the Division.

(3) *Other areas.*—It is anticipated that other special studies or project planning activities may be initiated by the Commission prior to the end of fiscal year 1965. In all such cases, these studies would be carried out by special staff personnel with funds provided by either the Redevelopment Land Agency, the District of Columbia government, or the Housing and Home Finance Agency, under the provisions of the Housing Act of 1949, as amended.

As a part of these activities of the Commission, it is anticipated that project planning activities in the Northwest No. 2 area may be initiated in late fiscal year 1964 or early in fiscal year 1965. Although the boundaries of this area have not

as yet been determined, Northwest No. 2 is to be the second of a series of urban renewal activities, in what is known as the second precinct, initiated by the Board of Commissioners of the District of Columbia in 1961, at the time of the establishment of urban renewal area boundaries of the Northwest 1 area. It is anticipated that these studies will probably be prepared by a special staff of the Commission financed with funds provided by the Redevelopment Land Agency under the Housing Act of 1949, as amended. Under these circumstances, the completion of an urban renewal plan could be anticipated late in fiscal year 1966 or early in fiscal year 1967.

In fiscal years 1964 and 1965, continuing Division staff activities in regard to the study of potential urban renewal project areas are anticipated.

REVIEW AND APPROVAL OF LOW-RENT PUBLIC HOUSING SITES

In fiscal year 1963, the Division staff assisted the Office of Urban Renewal and the staff of the National Capital Housing Authority in a study of potential sites within the District of Columbia for such developments. In addition, the staff reviewed and made recommendations to the Commission regarding the general approval of specific locatons, boundaries, and site layouts for the following proposed developments of the National Capital Housing Authority:

| *Location* | *Estimated number of housing units* |
|---|---|
| (*a*) Deanwood (general location only) | 84 |
| (*b*) 12th and I SE. (square 1020) | 330 |
| (*c*) Montana and W Street NE. (Lutheran Home) | 150 |
| (*d*) 4th and Edgewood NE. (St. Vincent's) | 300 |
| (*e*) 2d and M SE. (parks) | 40 |
| (*f*) 8th and Rhode Island NW | 150 |
| (*g*) 6th and H NW | 80 |
| (*h*) Adams-Morgan (part of the adopted urban renewal plan) | 243 |
| (*i*) Northwest No. 1 (part of the adopted urban renewal plan) | 356 |
| Total | 1,733 |

During fiscal year 1964 and 1965, the staff of the Division will continue its activities in cooperation with the National Capital Housing Authority and the District of Columbia government in the search for, and the review and approval of, sites for the construction of low-rent public housing.

In fiscal year 1964, five positions were allocated to this Division. The salaries for these positions, including benefits, totaled approximately $52,000, or 13 percent of the total personnel compensation and benefits.

FEDERAL PROJECTS PLANNING DIVISION

This Division carries out a major portion of the Commission's responsibility for a liaison relationship to the various Federal and independent agencies toward the full implementation of the National Capital Planning Act of 1952. This act requires each Federal agency, prior to the preparation of construction plans originating by such agency for proposed developments and projects or to commitments for the acquisition of land, to advise and consult with the Commission in preliminary and successive stages of their planning in order to assure the orderly development of the National Capital. The amount of activity in this sector has grown steadily and is expected to increase with the strengthening of the planning process and the necessary adjustments and expansions of the Federal Government's physical plant in the National Capital region.

At the beginning of fiscal year 1964, the Planning Commission engaged in reviewing and assisting 36 projects originating from various Federal agencies, such as the Departments of State, Defense, Commerce, Interior, Agriculture, and Health, Education, and Welfare, as well as the General Services Administration and others pertaining to the development of master plans for Federal installations in the Washington metropolitan area.

In addition to the review of Federal agencies' projects, this Division is responsible for the review of sites for monuments and memorials and also the review for parkland developments. Much of this work is coordinated with the Fine Arts Commission. Staff studies and recommendations are submitted to the Planning Commission for their consideration and action.

The Division is also responsible for the staff review of Federal agencies' 6-year public works programs and their annual fiscal year budgets as they pertain to proposed capital improvements within the Washington metropolitan area. In carrying out this work liaison is necessary with each Federal agency, as well as the Bureau of the Budget, to which the Commission reports on these matters.

As a part of the work program of the Commission, and also in conformance with the request of the Bureau of the Budget, the Federal Projects Planning Division now is undertaking a program to review the existing Federal land holdings within the District of Columbia and the Washington metropolitan area within Maryland and Virginia. The purpose of this study is to gage the potential future use of these sites for Federal employment in light of the existing agencies occupying the site and its possible use for expansion of the same agency and/or new Federal agencies. Upon completion of this project, the maximum utilization of existing sites for future Federal employment needs can be recommended, within the framework of the policies of the year 2000 plan.

Besides analyzing the existing Federal landholdings within the metropolitan area, the Division is also studying areas most acceptable for new Federal employment sites, both within the District and the region. Coordination of this project with the Comprehensive Planning Division is essential in the preparation of the 1985 comprehensive plan for the Nation's Capital, as well as with other local governmental jurisdictions through the National Capital Regional Planning Council.

The Federal Projects Planning Division is responsible for administering the concluding phases of the Capper-Cramton Act, as originated in 1930. This includes the delineation of taking lines for the purchase of lands for the George Washington Memorial Parkway in Maryland and the stream valley lands in Maryland and Virginia. This work is done in coordination with the park authorities of the local jurisdictions, as well as the legislative bodies. This also includes the completion of the program for the acquisition of playgrounds and recreation space in the District of Columbia.

In fiscal year 1964, four positions were allocated to this Division. The salaries for these positions, including benefits, totaled approximately $35,000, or 9 percent of the total personnel compensation and benefits.

### District Planning Division

In carrying out its part in the Planning Commission's role as the planning agency for the District government, the District Planning Division completed the following during fiscal year 1963:

Review of the District of Columbia public works program for 1964. This Division reviewed and prepared for review by the Commission the public works program for the District of Columbia. Preparation for this review required the coordinating of meetings between staffs of the District government and Planning Commission, preparation of maps, and review of past actions by the Planning Commission in regard to items in the program. Several staff meetings were held in order that all divisions of the staff were informed of the program. A staff report was then prepared by the District Division and presented to the public works committee of the Commission. After a presentation to the Commission of the program and committee report, the Planning Commission sent its report and recommendations on to the District Commissioners and the Bureau of the Budget.

Review of zoning matters and membership on Board of Zoning Adjustment and Zoning Advisory Council. As a member of BZA and ZAC, the Chief of the District Planning Division participated in review and action with respect to 505 appeals for exceptions and variances and 124 amendments to the zoning maps and regulations. This represented an increase of 14 percent in appeals for exceptions and variances and 50 percent in amendments to the zoning maps and regulations over the previous year. Review of these cases involves visiting the sites, attendance at public hearings, review of briefs submitted by applicants and attendance at executive sessions where action is taken on these matters.

This Division also wrote and presented at public hearings amendments to the zoning regulations suggested by the Planning Commission. Personnel of the Division serve on two special committees, one of which studies modifications to

the building code and zoning regulations, and the other, the District of Columbia-Maryland Zoning Advisory Committee, which reviews and reports on zoning changes in Maryland adjacent to the District line.

The Division processes through the Coordinating Committee of the Planning Commission and the Planning Commission itself, items relating to street and alley closings; transfers of jurisdiction; subdivision plats; and changes in the permanent system of highway plan.

The Division is responsible for preparing the agenda, writing the minutes and acting as secretary to the coordinating committee of the Planning Commission and serves in an advisory capacity to the other divisions of the Planning Commission on zoning regulations and the building code.

The work of this Division, with the exception of special studies, is of a continuing nature and it is expected that fiscal year 1965 work will be similar to the above. However, the number of appeals to both the BZA and the Zoning Commission have been increasing, and since work on the comprehensive plan is taking more staff time of all Divisions, it appears that the workload will increase. Legislation affecting District zoning has been introduced in Congress and if it is passed, it will require a study which will take considerable staff time.

In fiscal year 1964, three positions were allocated to this Division. The salaries for these positions, including benefits, totaled approximately $32,000, or 8 percent of the total personnel compensation and benefits.

## Technical Services Division

### GENERAL CONCEPT

A Technical Services Division has been established to bring a variety of special skills to the staff to supplement basic urban planning skills. Personnel in this Division are highly qualified in their own fields.

In general, they perform three basic functions: Consult with the four planning divisions as appropriate to the latter's programs, undertake special studies within their own area of competence, and maintain liaison between the Commission and related activities in other agencies and private organizations.

There are three special areas of skill involved: Traffic engineering, urban design, and economic and social analysis.

In fiscal year 1964, six positions were assigned to this division. The salaries for these positions, including benefits, totalled approximately $64,000 or 17 percent of the total personnel compensation and benefits.

### TRANSPORTATION PLANNING

Traffic planning in fiscal year 1964 will concentrate mainly on completion of the thoroughfare plan, through the use of new travel forecasts based on 1985 land-use proposals and the recommended transit system, in conjunction with preparation of the 1985 comprehensive plan. This work is undertaken jointly with the Comprehensive Planning Division. Detailed studies and analyses will be carried out with regard to segments of the District of Columbia freeway system which are in controversy and on which consensus must be reached by various agencies.

Detailed arterial planning will be worked out in relation to the comprehensive renewal program planning studies in cooperation with the Urban Renewal Planning Division. Urban renewal projects will continue to require attention to transportation planning details in fiscal years 1964 and 1965. The sourthwest project will continue to need attention, and special studies will be necessary for the Anacostia-Bolling project. Circulation ans parking studies and planning proposals for downtown should be completed in fiscal year 1964.

As a part of the Federal employment site study now in progress by the Federal Planning Division in conjunction with the preparation of the 1985 comprehensive plan, the traffic planning engineer is analyzing transportation needs as well as station locations as planning for the rapid transit system develops.

The traffic planning engineer must rely on liaison with staff of the District of Columbia Department of Highways and Traffic in coordinating matters concerning traffic circulation in urban renewal project areas. He deals closely with the various State and county highway departments, as well as the National Capital Transportation Agency and Washington metropolitan area transportation study in work concerning the thoroughfare plan and Federal employment site studies. These agencies are the source of most of the statistical data which is used in all phases of transportation planning.

One of the most important fiscal year 1965 activities of the traffic planning staff will be participating in the organization and cooperation with the regional transportation planning process, which is required to be established by the 1962 Federal Aid Highway Act. It is expected that new origin-destination surveys, programed and undertaken by other agencies, and travel forecasts will have to be made in order to plan and program future transportation facilities within a truly regional framework.

URBAN DESIGN

The urban designer and architects work in conjunction with all divisions to develop the functional and three-dimensional aspects of all plans and proposals. In this capacity, they are responsible for clarifying esthetic objectives and principles for the National Capital as planning proposals evolve. Such objectives and principles are expressed in verbal and graphic terms and further developed in preliminary design studies for urban renewal areas, Federal projects, parks, streets, and public facilities which come under the aegis of the Commission.

This special staff also makes recommendations on comprehensive planning, feasibility studies, and other projects which come before the Commission in its review process. They are specifically charged with certain projects where design considerations are predominant. The most important current projects are the comprehensive design studies for the 1985 comprehensive plan; the skyline study, working in conjunction with the Fine Arts Commission; and area site-design studies in connection with general plans, such as downtown progress, and a study of esthetic considerations involved in development of freeways. The Pennsylvania Avenue study required staff liaison with the Advisory Council and staff review for the Commission, beginning in fiscal year 1963, and it is anticipated that some of this activity will continue.

ECONOMIC AND SOCIAL ANALYSIS

One position exists on the staff for a specialist in urban economic and social analysis. Primary emphasis is given to study of economic factors (housing market, employment, personal income, public finance) and social conditions (population, family characteristics), affecting the formulation and carrying out of the comprehensive plan.

It is intended to extend this activity to include a reporting system on economic conditions and changes in the District as they are affecting the carrying out of the comprehensive plan. It is hoped to provide this data not only to the Commission but to interested parties in the community and government agencies as well.

Special Studies

The nature of urban growth and change, the rapidity with which change is occurring, and the need to obtain specialized insights and experiences has led the Commission to utilize the services of experts on daily bases or through contract studies when this is to the economy and convenience of the Government. A limited provision to permit such studies in fiscal year 1965 is established in the budget request.

Publications

Funds will be required for the publication of the comprehensive plan for 1985. Publication will take the form of an official document, plus a number of supporting documents and interpretive documents for the public.

A periodic statement of planning accomplishment also is sought to report to the many organizations interested in the work of the Commission and to make the recommendations of the Commission more meaningful and effective.

Urban Renewal Contracting

The Commission expects to continue to serve as a contractor for specific urban renewal studies for the District of Columbia and the Redevelopment Land Agency.

It is apparent that these services are provided at a cost which represents a saving to the urban renewal program because they are performed on a nonprofit basis. Supervision is provided by the Commission staff, and close coordination is achieved with other planning programs.

## NATIONAL CAPITAL REGIONAL PLANNING COUNCIL

The National Capital Regional Planning Council was established by act of Congress in 1952, embodied in Public Law 592. Its membership consists of 10 representatives of the planning agencies and local governing bodies which have jurisdiction in the National Capital region as defined in that law: 2 from the District of Columbia; 4 from the Mayrland counties of Montgomery and Prince Georges; and 4 from the Virginia counties of Arlington, Fairfax, Loudoun and Prince William, as well as the cities of Alexandria and Falls Church. The region comprises more than 2,390 square miles and has a present population of more than 2 million.

Under the law, the Regional Planning Council's primary responsibilities are to assemble and maintain a general plan for the development of the region and to reconcile the land-use requirements of the Federal installations beyond the District boundaries with the land-use requirements of and in each locality. Therefore, the Regional Planning Council's function is primarily that of a coordinator and catalyst serving as a central intelligence operation and clearinghouse on all planning and development matters having regional significance.

### RELATIONSHIPS WITH OTHER AGENCIES IN THE NATIONAL CAPITAL REGION

To accomplish its purposes, the Regional Planning Council works primarily with and through the National Capital Planning Commission and the Maryland-National Capital Park and Planning Commission and the Northern Virginia Regional Planning and Economic Development Commission; and the various local planning agencies in the National Capital region, as well as various special operating agencies or study groups that have regionwide responsibilities. To date, the latter have included the National Capital Transportation Agency, the Washington Metropolitan Area Transportation Study, the Health and Welfare Council of the National Capital Area, and the Washington Center for Metropolitan Studies, as well as various ad hoc study groups established by Congress, by Federal agencies, or at the State or local level. It also works in close liaison with the various local governing bodies of the region.

### SOURCES OF SUPPORT FOR REGIONAL PLANNING

Public Law 592 provides that the National Capital Planning Commission shall provide such technical and clerical assistance and such other services and facilities as may be necessary for the performance of the Regional Planning Council's functions. The Regional Planning Council may also accept such assistance, other than funds, as may be made available by any State or local governmental authority having jurisdiction in the National Capital region.

During the first several years of the Regional Planning Council's existence, only a very limited staff was provided from the budget of the National Capital Planning Commission, considering the vast scale of metropolitan growth problems in this region. However, this staff has gradually been expanded, and during the preparation of the year 2000 policies plan, consisting largely of regional policy recommendations, the effective regional planning staff was tripled by the addition of the National Capital Planning Commission's staff people on this project. Since its conclusion in 1961, there has been only occasional work required by the Commission's Comprehensive Planning Division on Regional Planning, but the Regional Planning Council continues to lean heavily upon the Commission's Technical Services Division, and the regular day-to-day cooperation between the two staffs continues, particularly in the exchange of stenographic assistance, when available, to the Council.

Local planning agency staff contributions have also been very important for the Regional Planning Council. During the preparation of the region's first general development plan in 1956, which later provided the land-use information needed for the 1980 transportation plan for the National Capital region, the information, data, and staff time contributed by the local planning agencies to the Council were key factors in the successful completion of this early effort.

It is primarily through the expansion of local contributions that the Regional Planning Council will be able to augment its resources materially. While Public Law 592 in its present form does not permit the Planning Council to receive moneys from other sources than the Federal Government, the Council is, nevertheless, attempting to increase participation and cooperation by the suburban jurisdictions and official planning agencies through amendments to Public Law

592 which, for the first time, would enable them to make direct financial contributions to the overall regional planning effort. These amendments will also permit such other regional agencies as the Metropolitan Washington Council of Governments to contribute directly to the Regional Planning Council to finance planning studies and services deemed necessary by the Council of Governments.

The combined program of administering the Council's affairs and operations, the development of an overall comprehensive regional plan, and the continued day-to-day coordination and liaison carried on with various local governing bodies, planning staffs, and the Federal Establishment necessitates the expansion of the professional staff of the Regional Planning Council to carry out effectively its function as outlined in Public Law 592. An internal staff reorganization along basic functional lines is necessary to begin at the latest by fiscal 1965. If local financial assistance can be obtained prior to this date it is hoped that these funds can provide at least partial support for the additional staff during fiscal 1964.

The present professional portion of the staff consisting of the Director, Acting Deputy Director, and three regional planners is proposed to be increased by one additional regional planner together with supporting stenographic personnel.

LONG-RANGE PROGRAM OBJECTIVES

1. To adopt and maintain a series of development policies for the National Capital region, based on the response of the several local governments to the year 2000 policies plan, and recognized as the regional development policies of all public agencies operating in the region.

2. To identify sound regional development goals which are acceptable to the Federal, District, and local governments and their planning agencies, and, so far as is possible, to keep the general public informed on the rationale used in making regional decisions.

3. To publish, adopt, and maintain the regional plan for 1980, embracing the current 1980 plans of all of the constituent jurisdictions for those fields in which the closest coordination of physical planning is necessary, including at least the following:

(*a*) Projected growth of total population in the region, with a breakdown of the estimates by age, sex, race, income, and number employed.

(*b*) General land-use plan for the entire region.

(*c*) The regional system of transportation arteries, primarily freeways and rapid transit lines.

(*d*) The trunk systems of the public utilities in the region, with initial emphasis on the sewer system.

4. To develop, adopt, publish, and promote regional action programs for those operations in which initiative by the regional planning agency is particularly needed in order to realize the year 2000 development policies, including, but not limited to, the following:

(*a*) Reservation of sites for future Federal employment centers—maintain file on potential future sites available throughout the entire region.

(*b*) Reservation of open spaces for the benefit of the residents of the region.

(*c*) Recommendations aimed at the alleviation of housing shortages for various segments of the metropolitan population.

(*d*) Alleviation of financial bottlenecks that might restrict the important capital investments in the regional plan for 1980.

(*e*) Promotion of the original development of a prototype suburban community in conformance to the corridor scheme of the year 2000 policies plan.

PROGRAM FOR FISCAL YEAR 1965

As stated previously, the Council proposes, for the first time since its inception to subdivide its staff into four basic, but functional, planning categories and, at the same time, to provide the increased professional complement with additional, supporting stenographic help. The four basic divisions are:

(*a*) Advanced or Comprehensive Planning Division: Prepare updated comprehensive plan.

(*b*) Current Planning Division: Develop regional coordination via review and liaison with Federal, District of Columbia, and local jurisdictions and their official planning agencies.

(*c*) Regional Transportation Planning Division: To work toward, and assist other agencies in the development of an overall balanced highway and transit system, acceptable by the various political bodies, and to assist in the establishment and maintenance of a continuning comprehensive regional transportation process as prescribed in the Federal Aid Highway Act of 1962

(*d*) Regional Research Division: To assemble and maintain up-to-date information, statistics and related projections on land use, economics, housing, population, etc., and to disseminate same.

With this expanded functional staff the Council hopes to carry out the following:

YEAR 2000 DEVELOPMENT POLICIES

Up to the present time, action on the policies developed in the year 2000 plan includes their adoption in a statement on development of the National Capital region by President Kennedy and their recommendation by the National Capital Regional Planning Council to all the local jurisdictions for their consideration in the preparation of their respective general plans. Beginning in July 1963, a 6-month program to develop a series of regional goals reflecting the desires of the inhabitants of the entire metropolitan area (based on statistical sampling techniques utilizing choices made by respondents following explanation of the alternatives available) is being pursued. This program, hopefully confirming the goals set forth in the year 2000 policies plan, will then be translated into guidelines for a 30-month program developing a revised and updated general development plan.

GENERAL DEVELOPMENT PLAN PREPARATION

Further development of the National Capital Region general development plan to the year 2000 will be carried out as a properly scheduled portion of the overall sequenced program of plan preparation. The scheduled portion of plan preparation for fiscal year 1965 involves two successive 6-month phases: identification of regional land use and transportation problems; and establishment of policies for solving these problems. Responsibility for executing both phases would be assigned to the Advanced Planning Division; identification of regional problems involves the Current Planning Division's liaison with local and other Federal agencies; careful coordination between the Current Planning Division, through the Council, and each cooperating agency is required for formulation of each regional plan policy. Responsibility for executing all portions of the general development plan dealing with regional transportation is assigned to the Regional Transportation Planning Division.

ACTION PROGRAMS

Continuing work on an action program for the selection and acquisition of open space within the National Capital region will be undertaken by the joint open space project staff. This cooperative program, supported financially by four Washington agencies, is administratively supervised by the Director of the National Capital Regional Planning Council through the project coordinator, who is responsible to the Director. Following the recent adoption by both the National Capital Planning Commission and the Regional Planning Council of a general procedure for the selection of sites for new Federal facilities in the National Capital region, the staff of the Regional Planning Council will attempt to establish a current inventory of available sites. The staff of the Council will, furthermore, maintain sufficient information on the planned highway and transit routes and construction programs, the growth of other Federal facilities planned in the area and the pattern of growth of residential areas within the region to allow the intelligent comparison and selection of sites to be made.

PLANNING RESEARCH

The Planning Research Division will support the assignments of the Advanced, Current, and the Transportation Planning Divisions by utilizing specialized skills and techniques of regional science. These techniques, which include very disciplined and closely correlated use of regional development and locational economics, sociology, and geography, are applied through research methods to all regional planning studies. Application of these research techniques will very greatly increase the validity and rationale of the general development plan in terms of land use and transportation location and economic development and projections. Planning research scheduled for the 1965 fiscal year includes application of regional scientific techniques to both scheduled phases of development of the general development plan; responsibility for coordinating regional research aspects of subregional and local governmental planning agencies; responsibility for gathering, sorting, and collecting statistical information of use for the Council; and coordinating and evaluating comparability of statistical data with local and subregional agencies.

REVIEW AND COORDINATION

During fiscal year 1964 the entire Regional Planning Council staff intensified its efforts to maintain liaison with other subregional and local planning agencies in the National Capital region, as well as with the various units of local government by attending their meetings, and providing advice and assistance where possible. In its capacity as creator and proponent of the general development plan and as the designated agency responsible for the coordination of all physical planning in the National Capital region, the Council will continue this important cutodial role of maintaining liaison with all current local planning operations.

JUSTIFICATION FOR INCREASES FOR NATIONAL CAPITAL PLANNING COMMISSION

*1. Editorial and technical writing aid, GS–12, $9,980 per annum*

A specialist in editing and technical writing is needed to improve the Commission's publication program which is now handled primarily by professional urban planners, whose talents should be utilized to the maximum extent on planning matters. This is especially emphasized in the presentation of the 1985 comprehensive plan, community renewal program and the continuing need for effective communication with the public and other agencies concerning the program and recommendations of the Commission.

*2. Personnel management assistant, GS–7, $5,795 per annum*

*3. Time, leave and payroll clerk, GS–5, $5,170 per annum*

Increases in the administrative staff have been deferred over the past several years in order to concentrate on expanding the professional staff for planning functions. As a result, although the staff financed under the "Salaries and expenses" appropriation has doubled since 1957, the administrative staff still consists of only an Assistant Director (Administration), a fiscal accounting assistant, and a general clerk. This staff needs to be augmented to assist the Assistant Director (Administration) in the proper performance of the heavy burden of financial management, budget, personnel, procurement and general office management.

The personnel management assistant is needed to assist in performing functions of recruiting, promotions, rewriting of position descriptions and routine records keeping, as well as handling personnel matters for the Assistant Director (Administration) in his absence.

The time, leave and payroll clerk is needed in light of the increased staff under "Salaries and expenses" and also increase of staff due to special projects and urban renewal programs.

*4. Assistant highway planning engineer, GS–12, $9,980 per annum*

An additional highway planner is required in order for the Commission to participate in meeting the new transportation planning requirements contained in the Federal Highway Act of 1962 and to become effective in 1965. The need for this position is also reflected in the preponderance of highway and transit issues which now face the District as well as the metropolitan region.

*5. Statistician, GS–9, $7,030 per annum*

This new position would be under the economist to assist in function of supplying data for the comprehensive planning program. This activity also will interpret available national and local population, economic and social data for the District, both for public and private use.

*6. Urban planner, GS–11, $8,410 per annum*

The Federal Planning Division has two professional employees on its staff, the Chief and his assistant. In view of this Division's essential participation on the preparation of the 1985 comprehensive plan, regarding the Federal Establishment, in the review of Federal agencies' annual and 6-year capital improvement programs in the Washington metropolitan area and in carrying out the year 2000 plan policies for location of Federal establishments as set forth in the President's memorandum dated November 27, 1962, this position is sorely needed.

*7. Clerk-stenographer, GS–5, $5,810 per annum*

This position is now in the Federal Planning Division and has been financed for the most part by the Capper-Cramton funds which are now terminating. As indicated above, the Federal Planning Division is now primarily concerned with the Federal Establishment and its capital improvement programs. As a result,

it is now necessary to finance this position through "Salaries and expenses." In addition, the Comprehensive Planning Division and Technical Services are to be served by this position.

*8. Urban planner, GS–12, $10,640 per annum*

The permanent professional staff of the Urban Renewal Planning Division supervises and coordinates the work of project planners and consultants, maintains liaison with other agencies involved in urban renewal, and provides continuity in a program consisting of many specialized studies and activities. At present, this program includes more than 10 urban renewal projects in planning or execution, as well as the citywide community renewal program, and staff services in connection with the planning of public housing.

For the past 3 years, this professional staff has comprised only two permanent positions. The increasing number and complexity of urban renewal activities in the District of Columbia, as well as the need to relate these activities to the guidelines being established by the community renewal program, now requires one additional professional position in this Division, financed from "Salaries and expenses" funds, in order to maintain the necessary level of staff services and assure effective program coordination.

Other increases are for seasonal personnel and the employment of experts as required in lieu of still further permanent staff increases. Nine positions are pending reallocation under Civil Service Commission allocation standards and additional funds will be required for this purpose.

A total of $10,000 for pay increase costs under Public Law 87–793 is requested. This increase resulted from legislation and cannot be absorbed without deleting one or more positions.

Travel costs have increased by the Presidential appointment of a new Commission member from Seattle, Wash. Additional travel expenses are requested for staff attendance at conferences and seminars, and for moving new professional employees to Washington. Telephone costs have increased in our new office space and the monthly rental costs cannot be absorbed within current funds.

Printing costs need to be increased considerably to allow for the publication of the 1985 plan, and other publications, and additional funds are requested for this purpose. An industrial survey and other special consultant studies are necessary to carry out our program.

JUSTIFICATION FOR INCREASES FOR REGIONAL PLANNING COUNCIL

The official general development plan of 1956, essentially unrevised since its adoption, is obsolete and needs complete revision because of a change in basic plan philosophy brought about by the year 2000 policies plan as adopted by the President and because of many revisions and new plans prepared by almost all of the local governments through their planning agencies. Newer local comprehensive plans, in fact, tend to ignore the official general development plan of 1956, much to the detriment of the logical and orderly growth of the National Capital region—in view of the impending impact of the proposed NCTA transit development program, the regional park and highway programs, the proposed NCPC 1985 plan, as well as plans now under preparation by the Maryland-National Capital Park and Planning Commission and the Northern Virginia Regional Planning and Economic Development Commission. Therefore, a program of revision and updating of the general development plan is in process and it is hoped that the basic plan can be completed by the fall of 1966. However, to produce a minimally acceptable plan within the legislative authority of the Council requires an increase of one professional planner and supporting stenographic services and updating of five other positions.

One professional position is programed as Chief of the Current Planning Division. This Division, with requisite responsibility assigned to the Division Chief, carries out the functions of regional coordination for the Council staff with Federal, District of Columbia, State, and all local governmental and subregional planning agencies and local civic associations, etc. Current coordination efforts occupy 20 to 30 percent of the time of the professional staff leaving very little time available to prepare a regional general development plan. Coordination efforts of the Council staff have grown considerably since 1956 when the last regional plan was prepared. This growth of information and coordination activity has resulted from the increasing activity by the Federal interstate highway program, NCTA proposed program, regional park activity in Maryland and Virginia, the proposed Corps of Engineers Potomac River Basin plan, and increasing problems of regional interest now being handled by local governments and their agencies together with local interest in implementation of the year

2000 policies plan. To recognize properly the Council's legislative charge to coordinate and exchange information with the region's local governments, as well as to augment present staff resources in order to prepare the regional plan, a position of Chief of Current Planning is programed. To obtain requisite quality of personnel through recruitment, in view of the nationwide scarcity of qualified professional planners, the position of Chief of Current Planning is recommended at GS–12.

*9. Urban planner, GS–12, $9,980*

A new professional position is programed and requested to head up the Transportation Planning Division. This Division, with requisite responsibility assigned to the Division Chief, assures that the very specialized needs and requirements of transportation planning and technology are properly recognized within the overall regional planning process. These duties utilize specialized skills and knowledge bridging transportation technology and the science and art or urban and regional planning. This Division, working with, advising, and supporting the Current and Advanced Planning Division, acts as a liasion with such local, regional, and Federal agencies as the local and State highway departments and planning commissions, the Washington Metropolitan Area Transit Commission, the Washington Metropolitan Area Transportation Study, the National Capital Planning Commission, the Northern Virginia Regional Planning and Economic Development Commission, the Maryland-National Capital Park and Planning Commission, and the National Capital Transportation Agency. The Regional Transportation Planning Division will work with and advise the Transportation Advisory Committee established under the Federal Aid Highyaw Act of 1962 (now in the organization stage). This Division prepares the technical portions of the general development plan related to transportation and overall land use planning. The combination of specialized engineering skills, thorough knowledge of planning principles, and skills of dealing with high-level officials requires that this new position and function be established at GS–12.

The Chief of Planning Research is programed to support the assignments of the Advanced Planning and the Transportation Planning Divisions by utilizing specialized skills and techniques of regional science. Just as daily coordinating activities have become a large portion of the regional planning staff's activities, so also professional techniques of plan preparation have now made mandatory programing of a regional scientist (urban planner, GS–12, with specialized training preferably in a curriculum leading to a master's or doctorate in regional science) for inclusion in the regional plan preparation functions of the Council. This position, which includes very disciplined and closely correlated use of mathematics, regional development and location economics, sociology, and geography, are applied through research methods to all regional planning studies. Application of these research techniques will very greatly increase the validity and rationale of the general development plan in terms of land use, transportation location, and economic development and projections. Also, the Chief of Planning Research is assigned, so far as is possible, the responsibility of coordinating, on a cooperative basis, the regional research activities of subregional and local governmental planning agencies, as well as the responsibility for gathering, sorting, and collecting statistical information of use for the Council. This position can be obtained for the Council by utilizing, at the end of fiscal year 1964, the position allocated to the joint open space project.

Five positions in the Council are requested for reallocation to higher grade at the beginning of fiscal year 1965 in accordance with the standards prescribed by the U.S. Civil Service Commission. Three of these positions are in the higher pay brackets. All the increases, in addition to being in keeping with established standards, are considered essential to fulfill the revised regional planning program which involves proportionately increased personnel responsibility as well as to retain the services of well-qualified individuals—in that the three professional positions are difficult to recruit due to a nationwide scarcity of qualified professional planners.

*10. Stenographers, (2) GS–6 and GS–5*

The normal increase in stenographic workload resulting from an increase in the professional staff and general program intensification necessitates the establishment of one additional position at the GS–6 level. The existing one secretary (GS–7) is spending too high a percentage of time handling the large routine workload necessitated by the greatly expanded role of the Council staff in coordination of the planning activities of local governments with the activities of the Regional Planning Council and other Federal agencies. These new activities necessitate

supporting stenographic skills as well as an annual increase of 20,000 items proposed to be mailed from the office to carefully prepared mailing lists of local governmental and civic officials to facilitate coordination and exchange of planning information.

At the present time, one secretary is servicing a total staff of five professionals causing from time to time many bottlenecks in getting out typing work, reports, drafts, minutes, etc. The GS–5 position is necessary to take over some of these duties now carried on by the secretary in order to expedite the general production and workload of the existing professional staff.

## LAND ACQUISITION, NATIONAL CAPITAL PARK, PARKWAY, AND PLAYGROUND SYSTEM

No funds are being requested in fiscal year 1965 for this appropriation.

A record of unobligated balances as of December 31, 1963, follows:

| | |
|---|---|
| George Washington Memorial Parkway: | |
| Arlington County, Va | $844 |
| Fairfax County, Va | 500 |
| Montgomery County, Md | 100,700 |
| Total, George Washington Memorial Parkway | 102,044 |
| Maryland stream valley parks | 12,345 |
| Park, parkway, and playground system in the District of Columbia | 876,044 |
| Total, unobligated balance | 990,433 |

### EXPLANATION OF BALANCES

*George Washington Memorial Parkway*

*Arlington County, Va.*—This amount represents the balance of funds appropriated for the parkway and allotted to Arlington County but unmatched by the local jurisdiction. Unless required to meet deficiency awards in pending condemnation cases and matched by the local jurisdiction or reallotted, these funds will be returned to the Treasury.

*Fairfax County, Va.*—This amount represents the balance of funds appropriated for the parkway and allotted to Fairfax County but unmatched by the local jurisdiction. Unless required to meet deficiency awards in pending condemnation cases and matched by the local jurisdiction or reallotted, these funds will be returned to the Treasury.

*Montgomery County, Md.*—$100,000 of this amount was appropriated in the Department of the Interior and Related Agencies Appropriation Act, 1963, for the acquisition of portions of the D.C. Transit Co. Cabin John right-of-way and several other properties necessary for the connection of the George Washington Memorial Parkway with the Little Falls Branch Parkway. It is anticipated that an agreement with the Maryland-National Capital Park and Planning Commission, providing for the matching of this amount, will be negotiated and executed and the amount obligated during fiscal year 1964.

*Maryland stream valley parks*

This amount represents the balance of funds appropriated under section 1(b) of the Capper-Cramton Act and not covered by agreements with the Maryland-National Capital Park and Planning Commission.

*Park, parkway, and playground system in the District of Columbia*

The $16 million authorized to be appropriated under section 4 of the Capper-Cramton Act has heretofore been appropriated and the unobligated balance has been programed for expenditure by the Commission. The projects for which substantial amounts are unobligated are as follows:

1. *Palisades Park.*—$123,000 is available for obligation for acquisition of the remaining properties comprising this project. It is anticipated that a substantial portion of this amount will be obligated in fiscal year 1964.

2. *Western Recreation Center.*—$325,000 has been allotted for this project. Negotiations for the acquisition of a site at 39th Street and Reservoir Road NW., on a part of the Archbold Estate, have been underway for several years without success. At its meetings on July 19, 1962, and September 13, 1962, the Commission approved an alternate location on another part of the Archbold Estate adjacent to the Whitehaven Parkway and authorized negotiations for the establishment of a precise alternate site and acquisition of the alternate site. It is not

possible to estimate when such negotiations will be concluded and all or a substantial part of this amount will be obligated.

3. *Adams-Morgan Playground.*—$350,000 has been allotted for the acquisition of park and playground sites within the Adams-Morgan urban renewal project area identified in the urban renewal plan adopted by the National Capital Planning Commission at its meeting on January 10, 1963. It is anticipated that the urban renewal plan will be approved by the Board of Commissioners of the District of Columbia early in 1964. It is not possible to determine how much of the amount allotted will be required for such acquisition of the site until the District of Columbia Redevelopment Land Agency prepares its application to the Urban Renewal Administration for Federal funds to carry out the project. The application will indicate the amount or amounts and source or sources of funds for the acquisition of lands for parks and playgrounds. It is anticipated that such application will be made and the required amount obligated in calendar year 1964. The balance, if any, will be reallotted to other projects or placed in the reserve.

STATEMENT OF MRS. JAMES H. ROWE, CHAIRMAN, NATIONAL CAPITAL PLANNING COMMISSION, MARCH 3, 1964

Senator BIBLE. At this time, Mrs. Rowe, your written statement will be incorporated in the record in full, and you may highlight the statement to indicate, among other things, the activities of the National Capital Planning Commission during the past year and your plans for the present year.

(The statement referred to follows:)

Mr. Chairman, members of the committee, it is a pleasure to appear before you today. As you know, the National Capital Planning Commission is the agency which does the physical planning for the District of Columbia and for the Federal establishments within the National Capital region.

The Washington region is the fastest-growing metropolitan aea in the East. It is the job of the Commission and the Regional Planning Council to plan the physical development to accommodate the rapid growth in population—schools, playgrounds, parks, libraries, sewers, roads, mass transit, and public housing are some of the public facilities that must be planned and coordinated. In the heart of the city where the poor housing is found, where the war on poverty will be concentrated, plans need to be made to improve neighborhoods—through rehabilitation as well as through the classic urban renewal process.

All these physical plans touch intimately the lives of the people of the District and its suburbs. Physical planning cannot be divorced from social planning—from the people it affects. The Commission's staff spends countless hours talking with citizen groups and with the city's private welfare agencies who know the people's problems at firsthand.

The problems I have mentioned are problems faced by every metropolitan area in the country. Here in Washington we have unique problems as well—Washington, as the Nation's Capital, must preserve its natural, historic, and architectural beauty. New plans and new buildings should enhance that beauty, not diminish it. Plans must be made for the location of Federal employment centers in the area, once the Congress has decided that a Federal facility should be in the Washington area.

Our budget request today reflects the work required to help solve these many problems. We are mindful of the President's desire to hold the Federal budget to the barest minimum consistent with the efficient discharge of each agency's duties. After careful examination and reexamination by the Commission and the Bureau of the Budget, the President has supported an increase for the next fiscal year in our budget.

We believe there are sound reasons which justify an increase. For instance, the Commission is charged with planning an efficient and economic arrangement of Federal facilities and employment centers in the National Capital region; a very modest increase in its budget to permit planning for the optimum utilization of federally owned land, and the wise and farseeing reutilization of obsolete or excess facilities will facilitate the achievement of cost reductions many times larger by other executive branch agencies.

During the past few years the Commission has been called on with increasing frequency by Federal agencies and the District government. We have been asked for a number of special reports and studies. Being what President Johnson calls a "can do" agency, those reports have been made and often in record time.

This steadily mounting workload means that the Commission's small staff not only works intensively, but overtime. There has been no increase in the permanent staff for the past 2 years while the workload increases each month. I know of no more dedicated, hard working group of Federal employees than the staff of the Commission and the Council. The budget requested this year would permit the hiring of seven new staff members for the Commission and three for the Council.

In closing I would also like to remind the committee that the members of the Commission itself receive no compensation. Five of the members are appointed by the President and eight are ex officio. Traveling expenses, but no compensation, are paid to the two presidential appointees, who are out-of-town members: Paul Thiry, from Seattle, the architect who designed much of the World's Fair; and McKim Norton from New York, director of the Regional Plan Association. The three local members appointed by the President, Dean A. M. Woodruff of George Washington University; Mr. Walter Louchheim, and myself, give many hours each week to the Commission problems.

May I ask that the members of the committee give sympathetic consideration to the budget before you.

### Washington as a Fast-Growing Area

Mrs. Rowe. I will just highlight it a bit, if I may, Senator.

Senator Bible. Develop it in your own way.

Mrs. Rowe. Washington, I state in the opening statement, is the fastest growing metropolitan area in the East——

Senator Bible. And second in the entire United States, if my statistics are correct.

Mrs. Rowe. And I think a look at the cranes on the city skyline indicate that there are great changes going on in the city as well.

### Additional Personnel

It is because of this growth and change that the Planning Commission has been busier than ever. It does need desperately the extra positions that we attempt to justify in the budget before you. And that would account for the increase in the appropriation that we are requesting this year.

We are, as President Johnson says, a "can do" agency. We feel that when the District Building calls on us for assistance, when the Federal Government asks for a report or a review of the project, this can be and is done, and often done in record time.

With that general statement the staff and I would be prepared to answer any questions.

### John F. Kennedy Center for the Performing Arts

I would ask at this time whether or not you want a presentation on the site acquisition for the Kennedy Center, or whether you prefer to do that after we take up the regular Planning Commission budget?

Senator Bible. I have questions covering those, and I think it might be well if we would develop our record by the questions which I am going to ask, and if there are areas that we haven't touched we will go into them at that time and try to build an adequate record.

I know of your work and I know of your devotion to this project of making this a more beautiful and better place in which to live,

and I commend you for the work that you and the other members of the Commission are doing. Much has been done. And obviously much remains to be done.

PERSONNEL

Now, how many positions do you have in the National Planning Commission at the present time? What is your present strength?

Mrs. ROWE. Forty-six, of which 38 are Commission and 8 Regional Council.

Senator BIBLE. You have 46. Now, you are requesting 10 new positions in the coming fiscal year, and 3 of them are in the Regional Planning Council. Now many personnel are employed by the Retional Planning Council?

Mrs. ROWE. The 46 figure includes the Commission and the Council.

Perhaps Mr. Heller or Mr. Pickens, the chairman, would like to speak on the present staff.

Mr. PICKENS. We have eight, Senator, and we are asking for three more.

Senator BIBLE. You apparently have an organizational chart before you that gives you the job positions of all of your present 46, is that correct?

CURRENT AND PROPOSED POSITIONS

Mr. DUTTON. Senator, that shows the current and the proposed positions, if you will notice the black dots, they indicate the positions requested.

Senator BIBLE. Is this included in the justification?

Mr. DUTTON. It is already in the justification.

Senator BIBLE. There is no need to duplicate it, it is already a part of the record.

This indicates your present 46 positions and where you will use your 10 new ones?

Mr. DUTTON. Right, sir.

Senator BIBLE. And these are grade numbers, 13, 14, 8, 6, 5?

Mr. DUTTON. Yes.

NEW POSITIONS

Senator BIBLE. I suppose this is a question that should be answered by both the Planning Commission first and the Regional Planning Council second, and that is, what is your need for the 11 positions? There are eight of them in the National Capital Planning Commission and three of them in the Regional Planning Council.

Mrs. ROWE. I think Mr. Dutton might speak to that. He could outline the activities that we are engaged in. I think that is the best answer we can give you, Senator, on the demand for the extra employees.

Senator BIBLE. Very well.

CLERK FOR CAPPER-CRAMTON PROGRAM

Mr. DUTTON. First, sir, I would like to point out that one of the eight positions is actually an authorized position that has not been funded in the past year. It was initially established to serve the Capper-Cramton program. It is a clerk-stenographer position which

we are carrying this year although it has not been funded, and we are asking funds for that.

The other seven, I would like to run through them in the order in which we list them in our justification for increase, if I may.

Senator BIBLE. Certainly.

EDITORIAL AND TECHNICAL WRITING AID

Mr. DUTTON. Initially on the chart in the upper left corner, the dot for editorial and technical writing aid is a position that we require in order to expedite our work of communication of the Commission's plans, and its studies and proposals to the community and to other agencies.

I brought a partial exhibit with me this morning, if you notice this pile of reports. The first half of the pile represents material that has been prepared for us by consultants and experts in specific fields or by the staff, work which the Commission has had prepared, but which is not available for release at this time, because we have not been able to perform the editorial writing on it. In order to add a new position to do that work we feel that we could most efficiently carry out the work by hiring a specialist, a trained writer to prepare this material for publication.

Senator BIBLE. What is the position just immediately above the editorial and technical writing aid entitled "Special Assistant in Community Relations"? What does the person who holds that do?

SPECIAL ASSISTANT IN COMMUNITY RELATIONS

Mr. DUTTON. Miss Small, who is here with us, has quite a variety of duties. She assists the Chairman and myself in correspondence and direct contact with people who call us for information, in preparing material for release to citizens' groups, and meeting with citizen organizations.

She has become quite a specialist in the field of historic preservation, and has published articles about the need for historic preservation of lands, parks, and architectural attractions in the National Capitol.

The editorial and technical writing aid would work closely with the special assistant and would have a major assignment in the coming year in preparing materials related to the 1985 comprehensive plan.

The second part of this stack in front of me is initial staff work being prepared for the comprehensive plan in 1985. It is prepared in the initial stage in rather technical jargon and for policy determination by our Commission. It needs a great deal of work if it is to be an effective document for the other public agencies, Federal and District, as well as for citizen groups.

MANAGEMENT ASSISTANT AND PAYROLL CLERK

The next two positions that are listed in our justification come under administrative services, a personnel management assistant, and a time-leave and payroll clerk. I would like to point out that we exist as a separate Federal agency, one of the 50 independent agencies, and we have a continuing and increasing workload with respect to managing the records, payroll, personnel, and so forth, of our agency.

In addition to the regular positions which we have been authorized, as you know, we have been carrying out work for the Pennsylvania Avenue Advisory Council, administrative work connected with that as well as for the open space project for the District, and have had in the past years other such responsibilities. In order to be sure that we are carrying out the proper performance in these various fields of management, we need to have additional assistance to be sure that we are fulfilling our responsibilities. We will be giving further consideration to the possibility that some of this work could be farmed out on a reimbursable basis, presumably to GSA, if it can be handled more economically on that basis.

Senator BIBLE. You have two new positions under technical services?

TRAFFIC ENGINEER

Mr. DUTTON. The traffic engineer, GS–12, request is responsive to the provisions in the Highway Act of 1962 in which the Congress has called for each metropolitan area to perform a continuing comprehensive transportation planning process in order to be eligible for continuing Federal funds, either from the interstate program or the 50–50 urban aid. The responsibility of our Commission with respect to Federal interest in the region, as well as the Municipal Planning Agency for the District is quite clear in the statutes, and we need to increase our ability to participate in this regional process for the area.

I might observe that there is a similar need in the Regional Planning Council to which I am sure the Council will address itself in a few minutes.

STATISTICIAN

The other position called statistician, under the economist, is concerned with our need to provide more of a clearinghouse, a central source of information on the activities and the growth in the District. Mrs. Rowe referred to the amount of private construction that is going on, as well as the public buildings. But there is no central source of data published that is of use to people who are concerned with urban development and making decisions about location in the area.

There is some partial data presented by private groups as well as by existing programs of Federal agencies. But we want to be sure that we are sensitive to the economic trends in the community, to the economic opportunities, and are able to suggest to private enterprise, private developers, how they can help us carry out our objectives for the National Capital.

CLERK FOR CAPPER-CRAMTON PROGRAM

The next position listed—I referred earlier to the clerk-stenographer as being a position that had been under the Capper-Cramton program but which has not been funded under previous budgets.

URBAN PLANNER

Another position to which I will speak is the urban planner, GS–11 under Federal Planning Division. I would like to point out that part of our response here is the fact that a few years ago the Congress

did determine that the Planning Commission staff should be reorganized and strengthened. We have increased our workload considerably as a result of past achievements of the Commission. The Federal Planning Division now is called upon as a result of the action by the Budget Bureau to review the plans of all Federal agencies concerned with capital improvements in the National Capital region, the area of 2,400 square miles. And this is causing an increasing workload.

We find that we get a great deal done by early consultation with these agencies on our plans and programs. But this does require a great deal of contact and followup work.

### Federal Planning Division

This Federal Planning Division, at present, just has one full-time planner plus a landscape architect to assist on site planning design. The Division is assigned the responsibility at the present time for developing an inventory of all Federal landholdings in the region. We have been asked by the Bureau of the Budget to prepare development plans, site development plans for all of the areas owned by the Federal Government to indicate what their maximum potential development might be.

And after completing that phase of the study we hope to be able to develop some recommendations for consideration by the executive branch as to what might be the pattern of development, future development of planned sites by the Federal Government in this area, in order to get the most efficient and economical operation of the Federal Government business in the region, in order to maximize the gains in terms of congressional decisions with respect to site development, and advanced planned acquisition.

The other positions are on the Regional Planning Council.

### Planning Agencies and Commissions in Metropolitan Area

Senator Bible. Without encumbering the record at too great a length—possibly it can be supplied for the record—I would like to have you comment on it briefly. How many planning agencies and commissions do we have in the metropolitan area? It always seemed to me that there is kind of a helter-skelter overall plan metropolitan-wise. We have the National Capital Planning Commission, and then we have the National Capital Regional Planning Council, and then we have the Fine Arts Commission.

### Statutory Authority for Buildings

Mr. Dutton. Yes, sir. They are, of course, not charged with the responsibility of planning in the region. We have a specific responsibility with respect to special statutory authority for buildings within the District, Federal buildings and other private buildings in certain designated areas.

Senator Bible. After you plan a building do you have to clear it with them as to height and architectural beauty?

Mr. Dutton. Other agencies have to, we do not get involved in that directly, but the GSA does have to submit building programs to the Commission on Fine Arts.

THEODORE ROOSEVELT MEMORIAL BRIDGE

Senator BIBLE. The reason I asked the question is, I happened to have something to do with the Theodore Roosevelt Memorial Bridge. And I thought we would never become disentangled from the endless redtape. And I don't know whether you have supplied any of the redtape or not, but we found it in many of the other agencies. And we finally got it cleared—are they building the bridge?

Mrs. ROWE. It is built.

Senator BIBLE. I knew it was almost operational.

But I was just wondering if you would supply for the record——

Mr. DUTTON. I might say, as you know from your study of the problems of the National Capital area, the assignment of responsibilities is made to a number of different agencies, and our functions do not entirely overlap other agencies, but there are many agencies where there are partial overlaps.

OVERALL REGIONAL PLANNING COMMISSION

Senator BIBLE. It has seemed to me that somewhere along the way an overall regional planning commission—and maybe this National Capital Regional Planning Council partly fits the picture—but what I am trying to say is that where you have the fragmented government that we have here, Montgomery County and Prince Georges and Alexandria and Arlington and Falls Church and the rest, it seems to me that somewhere along the way we could conceive an implementing agency which would have the power to speak with authority on behalf of these various agencies.

Now, I am not going to replow the ground that we did in these many weeks of hearings on problems of the metropolitan area. But if you have any doubt about it I would be very happy to have you supply it for the record, if you understand what I am trying to ask.

Mr. DUTTON. I believe I do. The organization for planning in the region and the number of agencies——

IMPLEMENTING A RECOMMENDATION

Senator BIBLE. Plus one additional factor, and that is, I would like to know how you implement it after you come up with the recommendation. This is where we always seem to bog down. I am not critical of it, it is just a fact of life. But once we come up with any type problem we find that we have to go to the government agencies of these various municipalities and counties and governing boards—not that there is anything wrong with that, except that it is cumbersome.

And if we had some overall agency—and I realize you get the criticism of creating a supergovernment—but I would like to have your thoughts on this.

Mr. HELLER. I believe I could answer your question, if you would like.

Senator BIBLE. If you can answer it go right ahead.

SUBREGIONAL COMMISSIONS

Mr. HELLER. I believe this will answer your question.

We have what we term three "subregional commissions": the National Capital Planning Commission, the Maryland-National Capital Park and Planning Commission, and the Northern Virginia Regional Planning and Economic Division. These agencies serve the three basic jurisdictions; that is, the two State areas, and the District of Columbia and the Federal Establishment on the part of NCPC.

Senator BIBLE. Does Maryland come into that?

Mr. HELLER. Yes, sir.

Senator BIBLE. As a member of what?

REGIONAL PLANNING COUNCIL

Mr. HELLER. The Regional Planning Council. The Regional Planning Council is the thin line at the top trying to bring about, I trust, some coordination of the efforts of the three subregional agencies. Now, in addition to the Regional Planning Council and the three aforementioned agencies, there are seven other local planning agencies of the National Capital region which have their individual staffs and budgets, and five additional agencies that are just commissions lacking a resident staff and a specific annual budget.

Senator BIBLE. What is the name of the agency that Congressman Sickles headed up at one time? Was that a compact, part of a compact commission?

METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS

Mr. HELLER. It was the Metropolitan Washington Council of Governments—he was chairman of the Conference.

Senator BIBLE. What is that?

Mr. HELLER. That is the bringing together of all of the elected representatives of the region to effect cooperation and mutual areawide problem solving. It is not a planning agency per se as we are.

Senator BIBLE. It is more or less an implementing agency, action agency?

Mr. HELLER. That is exactly correct. They represent the action end of things where the elected official has the prerogative and the powers to implement plans. We are the planning agency doing the planning and doing the advising, I trust, to these officials.

Senator BIBLE. I appreciate your consideration. And I would likewise invite you to supply anything that you would like for the record. I would like to have a little clearer picture as to how much headway we have made on some of the recommendations which were presented during our earlier hearings. I don't know whether these fragmentations can be pulled together more effectively or more efficiently or not, but I would like to have you give some thoughts to it.

YEAR 2000 PLAN REPORT

Mr. DUTTON. One other thought here. The National Capital Regional Planning Council and the National Planning Commission did do some regional study work recently that culminated in a "Year 2000 Plan Report." This report, I think, is an example of what can

be done by a planning agency that comes up with a good idea that is acceptable in the community, and it does then attract a great deal of support.

I might just show you the reference here to a letter signed by President Kennedy endorsing some of the basic objectives of the report. And we will supply for the record other information about the impact that it had on the planning programs of other agencies in the region.

Senator BIBLE. I would appreciate it if you did. All I want to do is give each of you the opportunity of giving your views on whether or not we are adequately planning for the metropolitan area, and having made the plans, are we properly set up to carry the plans into effect. These are about the two questions I had in mind.

COOPERATION OF PLANNING COMMISSION WITH AGENCIES AND CITIZENS GROUPS

I understand that Senator Mansfield has suggested two questions. They may possibly be somewhat similar to the ones I am suggesting. They are: To what extent does the Planning Commission work with other agencies and citizens groups in developing its planning recommendations?

You partly answered that. And if you care to amplify it, please do so for the record.

CITIZEN GROUPS

Mrs. ROWE. We might talk about working with the citizens groups, we have talked about the other agencies.

Mr. DUTTON. We do have a particularly strong responsibility in working with citizen groups in the District of Columbia, and particularly in reference to the "Comprehensive Plan for 1985" which is now due for publication the following June of 1965. We are preparing an intensive program of interchange with citizen groups. And we have a special consultant on problems of citizen participation who is preparing suggestions for the Commission as to how to really, in a meaningful way, contact the organized groups of the District of Columbia.

This will include organizations interested in citywide problems as well as the neighborhood and community groups.

FEDERAL OPERATING AGENCIES

Also at the same time we will be going through an intensive process of coordination with a number of Federal operating agencies concerned with problems in the District as well as the District of Columbia operating departments.

I would like to point out that the Commission itself has six ex officio representatives from Federal and District offices serving on the Commission. Presently I, or members of my staff representing me, serve on about 45 coordinating committees mostly composed of other operating officials. And I would like to repeat again that we are particularly concerned here about our ability to communicate with the public on the Planning Commission recommendations in order to insure that we do get effectuation of our proposals.

RELATION OF STUDIES TO ECONOMIC AND SOCIAL NEEDS

Senator BIBLE. One further question has been suggested by the majority leader, and that is, How does the Planning Commission relate its studies to private economic and social needs and to the operation of a private construction industry?

Mr. DUTTON. Sir, we have been particularly concerned to make sure that our proposals are sensitive to economic and social problems and not just physical planning or architectural solutions proposed. We have added to our staff in recent months a specially trained person in the economic and social analysis field who is assisting in an analysis of the 1985 plan as well as the community renewal program of the District, to be sure that we are aware of social and economic implications of that proposal.

We are anxious, as I indicated before, to be in a further position to add in a complex of relevant data to be sure that we are informed as to implications of proposals that then can be presented to the Planning Commission to assist them in their decisionmaking. We believe that this is a normal function of a municipal planning agency that we should be discharging as a part of the District government assignment that we have under our statute.

We believe that if we do present the information that is not available now in the community so that it will assist in the decisionmaking of private industry itself with respect to their location of office buildings, private residential development, and so forth. We have thus been trying to translate our planning proposals into some guide as to how private industry response can be made, and we are anxious to work with private enterprise.

TRANSPORTATION PROBLEM

Senator BIBLE. One of the real tough problems that we have in this area, I think we are all aware of it—we have the agency here before us—is the question of transportation, moving people in the metropolitan area. Of course, one of the real tough problems there on the highway level is what happens when you build the north leg of the interloop on problems of dislocation.

DISLOCATION PROBLEM

Now, are your views solicited by the Highway Department on that problem, questions of dislocations?

Mrs. ROWE. I think this is a very pertinent question. We in the last year hired the Health and Welfare Council of the city, the central agency of the private voluntary agencies of the city to make a report for the planning commission on the relocation problems of the north leg. This was a social aspect of planning that we thought was of the utmost importance.

Senator BIBLE. We have a lot of problems.

Mrs. ROWE. Indeed. But this was a private consultant's study that we have made on these very problems that you raised.

Senator BIBLE. But what happens after you have the study, what do you do with the study?

COOPERATION WITH DISTRICT HIGHWAY DEPARTMENT AND NATIONAL CAPITAL TRANSPORTATION AGENCY

Mr. DUTTON. We have been working closely with the District Highway Department on this study. There have been times in the past when the communication was not as close as it is now. We had a meeting last week all afternoon with consultants hired by the Highway Department to study the solution proposed for the north leg by the Policy Advisory Committee; that is, a maximum tunneling. We at present can say that we have very close working relationships with the District Highway Department. We also enjoy good working relationships with the National Capital Transportation Agency, and we are being asked for our opinion, and we expect that if our advice is good it will be followed.

Senator BIBLE. I am glad to hear that you are working very closely with both agencies, because this is a problem of high priority.

My own personal opinion is that somewhere along the way we are going to have to arrive at a balanced system, the sooner the better, because I think time runs against us costwise and problemwise.

RAPID RAIL TRANSIT SYSTEM

Mr. DUTTON. The Commission has recently reiterated its support of a rapid rail transit system for the area. And all of our planning is based on what we believe is the necessity for providing such a system.

Senator BIBLE. I am happy to hear you say that.

1985 COMPREHENSIVE PLAN FOR THE DISTRICT OF COLUMBIA

What is the status of the Pennsylvania Avenue study for the completion of which funds were made available last year?

Mrs. ROWE. The work on the project is completed. The report is in final form and is, I understand, either on its way or at the Government Printing Office. So it should be only a matter of weeks before the plan is presented to the public.

Senator BIBLE. And would you either describe—or I think possibly better supply for the record—the 1985 comprehensive plan for the District of Columbia?

Mrs. ROWE. Senator, I am afraid we can't put in the 1985 comprehensive plan. It is in sketch form now. I believe we would burden the record if we tried to submit that kind of raw material. This is what we are working on now. And it will be published next year.

PUBLICATION OF THE PLAN

Mr. DUTTON. I might add that our appropriations request does specifically ask for an additional $20,000 for us during the next fiscal year to enable publication of the plan report and its proposals for the public. So this is the publication we are talking about.

Senator BIBLE. What you are saying is that you have a year's work before you finalize the plan?

Mr. DUTTON. Yes, sir.

Senator BIBLE. And our request is a little premature, but you are making a request for another $20,000 to try to hurry it along?

Mr. DUTTON. That is correct, sir. And we will have something more specific for you next year.

ASSISTANCE ON FEDERAL GOVERNMENT OFFICE SPACE

Senator BIBLE. Senator Humphrey has suggested two questions. One is, what assistance do you give to the Federal Government on the location of new office space?

Mr. DUTTON. Sir, I have talked about that general question. I might just point to this one map behind me that is labeled, "Federal Installation, Regional Growth."

Senator BIBLE. I don't think you have mentioned that specifically. What do you do to give assistance to the Federal Government on the location of new office space?

Mr. DUTTON. Under current Budget Bureau procedures any agency requiring additional office space or other capital improvement in the National Capital region is required to consult with us in the early stages of the process. This comes under the budgetary procedures in the executive branch. We have just really instituted this procedure in the past couple of years, and this is why we are particularly needful of additional positions within our Federal Planning Division. This, of course, is being done on more or less of an ad hoc basis or day-to-day basis. But to anticipate this in the future we have begun this inventory of all Federal buildings in the area. The District of Columbia is indicated by these boundaries, Arlington County being the remainder—if you recall, this portion of the District of Columbia was given back to Virginia many years ago; it was decided that it wasn't necessary, because the District wasn't growing very large.

MASTER DEVELOPMENT PLANS

In the meantime the region has grown as indicated by these yellow patterns. This is not the current growth, but the projected growth in the future. The 35 large blue stars indicate the location of federally owned real estate in the region. And these are the sites that we are inventorying now, developing proposed master development plans for the sites to see what accommodation they can have in the future for Federal office buildings as well as studying and anticipating future needs that might suggest advance land acquisition procedures.

CAPITOL GROUNDS JURISDICTION

Senator BIBLE. Do you have jurisdiction on Capitol Hill, for example, if there is more space sought for a third new Senate office building? Do you have jurisdiction over this?

Mr. DUTTON. There is some question about the jurisdiction that we have as related to the Capitol grounds—that is the official title.

Mr. SHEAR. The Planning Commission has no jurisdiction over the Capitol grounds as such, Mr. Chairman. The National Capital Planning Act of 1952 reserves, out of the jurisdiction of the Commission over planning for the District of Columbia and Federal planning for the region, the Capitol grounds.

COOPERATION WITH THE ARCHITECT OF THE CAPITOL

Mr. DUTTON. I hasten to add, sir, that Mrs. Rowe and I recently have met with Architect of the Capitol Stewart and his staff to develop a procedure for close working relationships particularly in conjunction

with the 1985 plan. We have been assured of cooperation from his office and have offered ours. And we expect to have, within the 1985 plan, specific proposals that recognize the needs and interests as presented by the representatives of the Congress, and taking into consideration the surrounding areas of the Capitol grounds.

Mrs. ROWE. I think we have a good cooperative relationship.

Senator BIBLE. The Chairman of the full committee is the expert on this. And that is why I asked the question.

Senator Hayden.

Senator HAYDEN. I am simply thinking about the time when we decided to clear off all the old houses in the vicinity of the Capitol and make it available for parking space. My recollection was that Congress passed some kind of resolution of taking, and then it was handled by the Architect of the Capitol, and the appraisals were made by the District authorities. And I am glad to say that nobody asked more than the appraised price; and the property was acquired at a very reasonable rate.

Senator BIBLE. Did you have any questions on this point here, Senator Hayden?

Senator HAYDEN. No.

### DISTRICT OF COLUMBIA PUBLIC WORKS PROGRAM

Senator BIBLE. The second question Senator Humphrey asks is, "What role does your Commission play in the planning of the District of Columbia public works program?"

Mr. DUTTON. Sir, that is a question that relates directly to the Planning Commission's interest for long-range programing of the expenditure of public funds in the District, and is a question that we are approaching through the study of the 1985 plan development. We did prepare for presentation to the Commission recently a map of the proposals that the District of Columbia Board of Commissioners has made for public improvement for the next 6 years in the District.

### PROPOSED 6-YEAR PROGRAM

I would like to quote a financial figure here that there have been proposed for the next 6 years, fiscal 1965 through fiscal 1970, in the District of Columbia, projects which would cost in the neighborhood of $371 million, a total of 300 projects.

These are shown on this map behind me. The different stars and symbols indicate different projects for schools and playgrounds, libraries and health facilities, highways and so forth, as well as the different colors showing the different years in which these are programed.

Up until recently the District public work budget has been prepared primarily on a year-to-year basis and has been reviewed by the Planning Commission on that basis to see if we have supported or recommended against particular developments. This year, for the the first year, there was a 6-year program prepared by the Board of Commissioners in time for review by the Planning Commission, and we are able to make comments on the general allocation of funds for that period. During the preparation of the 1965 plan we will include a 20-year public works improvement program so that we will have dollar signs on the major proposals. The costs can be determinative

of the proposals that we are making; and this work will be coordinated closely with the operating departments of the District concerned.

Senator BIBLE. In all of this I assume you work very closely with the District Building.

Mr. DUTTON. Yes; particularly in this we work through the Engineer Commissioner's Office, the Assistant Engineer for Planning and Programing, and the Office for General Administration.

ANACOSTIA-BOLLING FACILITY

Senator BIBLE. Now, have you made any proposals for the use for Anacostia-Bolling?

Mr. DUTTON. We have not made a recommendation at this time. We are engaged with several other agencies in attempting to prepare a detailed study of the area. There have been some 25 proposals made for development of the facility or part of it by various public agencies for private uses. We are now working with the executive office, and the Redevelopment Planning Agency, in particular, to develop a complete planning and redevelopment study of the area. This has been delayed considerably from the time it was originally talked about, but we do believe it is going to go forward in the very near future.

Senator BIBLE. Who will finally make the decision as to what use is made of it? Where does the responsibility lie? Is the title still in the U.S. Air Force?

Mr. DUTTON. The title, I believe, is in the GSA; is that correct?

URBAN RENEWAL PORTION

Mr. CONRAD. There has been an agreement made as to what land would be retained by the Air Force. What portion would be turned over for urban renewal—I believe some 600 acres would be turned over for urban renewal.

As to where the exact transfer of land is under that agreement I do not know, I would imagine it is still within the Air Force's jurisdiction until such time as a plan for that 600-acre portion is prepared by the Planning Commission and disposed according to that plan. At that time I imagine a transfer would be made from the Air Force probably to GSA and then into whatever uses are proposed under the plan, some of which may be Federal and the rest of which may be private.

Senator BIBLE. The Air Force, then, is retaining part of the use of both; is what you are saying?

REDEVELOPMENT PROJECT

Mr. DUTTON. Yes, sir.

To answer your question more specifically about the decisionmaking that will be involved on the remainder of the property, the property eventually will be turned into a redevelopment project and become the property of the Redevelopment Land Agency, the local agency for carrying out renewal.

Our Planning Commission has the responsibility of approving the redevelopment plan which will indicate the uses. And the Board of Commissioners will approve the plan. So that really there are two levels of decisionmaking. So that the Planning Commission initiates the proposal and the Board of Commissioners has to concur with it before it becomes the plan under which the Redevelopment Land Agency will dispose of the property.

Senator BIBLE. Would you care to add anything to that?

Mr. SHEAR. No; that is correct.

CAPPER-CRAMTON ACT LAND ACQUISITION FUNDS

Senator BIBLE. Although you are not proposing appropriation of land acquisition funds, the material supplied with the justification for your fiscal year 1965 budget indicates an unobligated balance of $876,000 for Capper-Cramton Act appropriations for the park, parkway, and playground system for the District of Columbia. What is the total amount authorized for this purpose?

Mrs. ROWE. I believe Mr. Shear could answer that.

Mr. SHEAR. The total amount authorized under section 4 of the Capper-Cramton Act, Mr. Chairman, is $16 million. All of the funds authorized to be appropriated have been appropriated, obligated, or allocated to projects under that program in the District of Columbia. The remaining unobligated balance is, as you point out, $876,000.

Senator BIBLE. Would you please supply for the record a table showing the amounts requested and the amounts appropriated for land acquisition for the park and playground system in the District of Columbia for each of the fiscal years 1958 through 1964? Please show by footnote, or otherwise, the particular purpose or purposes for which each amount requested and appropriated was justified.

Mr. SHEAR. We will be happy to do that.

(The table referred to follows:)

*District of Columbia park, parkway, and playground system: fiscal years 1958–65*

| Project | Amount requested | Amount appropriated |
|---|---|---|
| Fiscal year 1958: | | |
| Watts Branch Park | $19,800 | $19,800 |
| Anacostia Park section G | 31,900 | 31,900 |
| Fort Drive, section B | 154,715 | 154,715 |
| Fort Drive, section J | 1,100 | 1,100 |
| Palisades Park | 359,740 | 359,740 |
| Buchanan Recreation Center | 148,500 | ---------- |
| Broad Branch rights-in-land | 77,440 | 77,440 |
| Cleveland Park Recreation Center | 220,000 | ---------- |
| Georgetown Recreation Center | 165,000 | 165,000 |
| Northeast playground, adjacent to Wheatley School | 275,000 | ---------- |
| Fairfax Village Playground | 77,000 | 77,000 |
| Neighborhood park, vicinity of New Hampshire Ave. and Park Rd. NW. | 229,585 | ---------- |
| Klingle Valley rights-in-land | 46,310 | 46,310 |
| Total | 1,806,090 | 933,005 |
| Land acquisition expenses | 46,910 | 66,995 |
| Grand total | 1,853,000 | 1,000,000 |
| Fiscal year 1959: | | |
| Buchanan Recreation Center | 98,500 | ---------- |
| Cleveland Park Recreation Center | 220,000 | ---------- |
| Northeast Playground, adjacent to Wheatley School | 275,000 | ---------- |
| Neighborhood park, vicinity of New Hampshire Ave. and Park Rd. NW | 225,800 | ---------- |
| Fort Drive, section H | 30,000 | ---------- |
| Fort Dupont Park | 55,000 | ---------- |
| Rose Park Playground | 20,200 | ---------- |
| Hardy School Playground | 47,000 | ---------- |
| Neighborhood park, vicinity of Wisconsin and Massachusetts Ave.'s NW | 85,000 | ---------- |
| Total | 1,056,500 | ---------- |
| Land acquisition expenses | 63,500 | ---------- |
| Grand total | 1,120,000 | ---------- |
| Fiscal year 1960: | | |
| Georgetown Recreation Center | 250,000 | 250,000 |
| Petworth Playground | 120,000 | 120,000 |
| Adams-Morgan demonstration project, area playground | 400,000 | 400,000 |
| Park-playground, vicinity of New Hampshire Ave. and Park Rd. NW | 250,000 | 250,000 |
| Northeast Playground, adjacent to Wheatley School | 175,000 | 175,000 |
| Rock Creek and Potomac Parkway (Sec. 1) (Cultural Center) | 350,000 | 350,000 |
| Palisades Park | 31,000 | 31,000 |
| Neighborhood park, square S of 104 | 243,000 | 243,000 |
| Total | 1,819,000 | 1,819,000 |
| Land acquisition expenses | 105,000 | 105,000 |
| Grand total | 1,924,000 | [1] 1,924,000 |

[1] Completion of appropriations under $16,000,000 authorization under sec. 4 of the Capper-Cramton Act.

## JOHN F. KENNEDY CENTER FOR THE PERFORMING ARTS

Senator BIBLE. There are pending two fiscal year 1964 supplemental budget estimates for land acquisition in the District of Columbia. One is for $2 million for the acquisition of lands in private ownership within the site on which the John F. Kennedy Center for the Performing Arts will be constructed. The justification statement for this estimate will be printed in the record.

(The justification statement referred to follows:)

### LAND ACQUISITION, NATIONAL CULTURAL CENTER SITE

The Commission requests a supplemental appropriation in the amount of $2 million for the acquisition of the remaining lands in private ownership within the site on which the National Cultural Center may be constructed pursuant to section 3 of the National Cultural Center Act (September 2, 1958, 72 Stat. 1698), as amended.

The site contains approximately 7.7 acres, of which 1.8 acres was in private ownership on the date of enactment of the National Cultural Center Act. The Commission subsequently acquired 0.53 acres of the land in private ownership at a cost of $775,000 with funds appropriated to the Commission for the acquisition of lands for the park, parkway, and playground system of the District of Columbia under section 4 of the act of May 29, 1930 (46 Stat. 482), as amended (the Capper-Cramton Act), and allotted by the Commission, with the approval of the Board of Commissioners, to land acquisition for the site of the National Cultural Center.

All of the funds authorized to be appropriated by section 4 of the Capper-Cramton Act have been appropriated to and allotted by the Commission for land acquisition for various park, parkway, and playground projects in the District of Columbia. Accordingly, an appropriation for site acquisition under the authority of section 3 the National Cultural Center Act is essential to permit completion of the assembly of the site of the Center.

### Rock Creek and Potomac Parkway

Senator Bible. The other is for $1,300,000 to acquire the remaining lands in private ownership in square 10 of the District of Columbia as an addition to the Rock Creek and Potomac Parkway to provide an appropriate park setting for the John F. Kennedy Center for the Performing Arts. The statement submitted in support of this estimate will also be included in the record.

### Land Acquisition, National Capital Park, Parkway, and Playground System

The Commission requests a supplemental appropriation in the amount of $1,300,000, $500,000 of which is for the acquisition of the remaining lands in private ownership in square 10 in the District of Columbia as an addition to the Rock Creek and Potomac Parkway in order to provide an appropriate park setting for the National Cultural Center and related facilities.

The remaining $800,000 requested would replace an equal amount appropriated to the Commission for the acquisition of lands for the park, parkway, and playground system of the District of Columbia under section 4 of the Capper-Cramton Act and used for land acquisition for the site of the National Cultural Center. Since all of the funds authorized to be appropriated by section 4 of the Capper-Cramton Act have been appropriated and committed, the availability of additional land acquisition funds is essential to completion of park, parkway, and playground projects now underway and to be proposed in the 1985 comprehensive plan for the District of Columbia under preparation by the Commission.

### National Cultural Center Act of 1958

Senator Bible. The $2 million request is for purchase of land within the area delineated by the National Cultural Center Act of 1958. Of the original 1.8 acres of privately owned land in that area how much remains to be acquired?

Mrs. Rowe. An acre and a half.

Senator Bible. Have negotiations proceeded to a point which indicate that this amount will be sufficient to acquire all of the designated property?

Mrs. Rowe. I think perhaps Mr. Shear can better answer that.

Mr. Shear. Mr. Chairman, we have not entered into negotiations at the present time. Our estimates are based upon two appraisals by competent, well-established real estate appraisers in the District of Columbia, and represent in our opinion a sufficient amount to permit acquisition within the amounts requested.

Senator Bible. What do you propose to do if this is not enough money? Will you ask for more?

Mr. Shear. I suppose that is what we would have to do, Mr. Chairman.

Senator BIBLE. I imagine that was the purpose of that question. It seems to me the answer is somewhat obvious.

JOHN F. KENNEDY CENTER FOR THE PERFORMING ARTS

At this point I will include in the record a memorandum signed by the Director of the National Capital Planning Commission in which is set forth allocations and appropriations for land acquisition for the Center site. Also, there will be printed the summary of private properties acquired and to be acquired.

(The information referred to follows:)

LAND ACQUISITION

NATIONAL CAPITAL PLANNING COMMISSION,
*Washington, D.C., February 20, 1964.*

Memorandum

To: Paul Eaton, Senate Committee on Appropriations.
From: W. C. Dutton, Jr., National Capital Planning Commission.
Subject: Land acquisition, John F. Kennedy Center for the Performing Arts and vicinity.

In accordance with your request there are transmitted herewith a schedule of the properties acquired and to be acquired for the site of the Kennedy Center and vicinity and a map thereof.

The John F. Kennedy Center Act (72 Stat. 1698), as amended, authorizes the construction of the Center on a site in the District of Columbia bounded by the inner loop freeway, the Theodore Roosevelt Bridge approaches, the Rock Creek Parkway, F Street NW., and New Hampshire Avenue NW., as selected by the National Capital Planning Commission, and directs the Commission to acquire land necessary for the Center and related facilities. The site was recommended for this purpose by the Commission on May 1, 1958. It contains approximately 7.7 acres, of which 1.8 acres were in private ownership.

Although the act contains no authorization for the appropriation of funds for the acquisition of the lands in private ownership, the Commission expressed its willingness, subject to the concurrence of the Board of Commissioners of the District of Columbia, to allocate for this purpose $300,000 of the funds theretofore appropriated to the Commission for the acquisition of lands for the park, parkway, and playground system of the District of Columbia under section 4 of the act of May 29, 1930 (46 Stat. 482), as amended (the Capper-Cramton Act) and to seek additional appropriations for this purpose under the Capper-Cramton Act. On June 3, 1958, the District Commissioners, who are required under the Capper-Cramton Act to repay to the U.S. Treasury funds appropriated for park, parkway, and playground land acquisition, approved the use of Capper-Cramton funds for Center site acquisition and the Commission at its meeting on September 4, 1958, allotted $300,000 in its fiscal year 1959 land acquisition program for the extension of the Rock Creek and Potomac Parkway as a site for the Center. In addition, the Commission included $350,000 for this purpose in its fiscal year 1960 budget estimates. Thereafter, the Commission increased the total amount of Capper-Cramton funds allotted for this purpose to $355,000 on February 5, 1959, to $705,000 on August 14, 1959, and to $800,000 on September 14, 1961.

On December 3, 1959, the Commission approved an enlarged site for the Center and the relocation of portions of the Rock Creek and Potomac Parkway required to permit the construction of the Center in accordance with Mr. Stone's preliminary designs, which were presented to the Commission at its November 5, 1959, meeting. The action of the Commission was based on its understanding that the trustees would seek enactment by the Congress of an amendment to the act to enlarge the site within which the Center may be constructed. Such legislation was introduced (S. 3381, S. 3409, and H.R. 11871), but not enacted in the 2d session of the 86th Congress nor in the 87th Congress (S. 516 and H.R. 988). In reporting on S. 3381, S. 3409, and H.R. 11871, the Bureau of the Budget and the Commission recommended that the legislation be amended to authorize the appropriation of $1.5 million for land acquisition for the Center.

When the Congress did not enact legislation enlarging the site in the 2d session of the 86th Congress, in order to permit planning and fund-raising activities for the Center to proceed without interruption, Mr. Stone prepared an alternative preliminary design for the Center, permitting its construction within the area

designated in the act, but requiring the relocation of portions of the Rock Creek and Potomac Parkway. At its meeting on September 8, 1960, the Commission approved the alternate site and the relocation of portions of the parkway, and the acquisition for this purpose of lots 800 and 807 and part of lot 808 in square 10. Because reconstruction and enlargement of the improvements on lots 800 and 807 (Waffle Shop) had begun, the Commission authorized negotiations for the acquisition of the properties and, after such negotiations were unsuccessful, the Commission acquired the properties as an addition to the Rock Creek and Potomac Parkway by condemnation at a total cost of $146,000 with funds contributed for this purpose, in accordance with section 4 of the Capper-Cramton Act, by the trustees of the Center. In order to prevent imminent development of the properties in square 20 in private ownership which had been assembled for such purpose, the Commission acquired by direct purchase in February 1963, at a total cost of $774,157.50, lots 10, 21, 22, 24, and 800 to 806, inclusive, in square 20. Together with title, appraisal, and related expenses, this purchase effectively exhausts the total amount alloted to this project by the Commission from funds appropriated under section 4 of the Capper-Cramton Act.

W. C. DUTTON, Jr., *Director.*

KENNEDY CENTER SITE

| | Owner | Area (square feet) | Amount |
|---|---|---|---|
| 1. Properties acquired: Square 20, lots 10, 21, 22, 24, and 800–806. | Landow and Brandt et al | 22,942.5 | [1] $774,157.50 |
| 2. Properties to be acquired: | | | |
| Square 11, lot 5 | Heurich estate | 22,926.0 | [2] 2,000,000.00 |
| Square 11, lot 802 | Adele M. Ward | 2,499.0 | |
| Square 12, lots 1-3 and 8–12 | Heurich estate | 28,050.0 | |

ADDITION TO ROCK CREEK AND POTOMAC PARKWAY

| | | | |
|---|---|---|---|
| 1. Properties acquired: | | | |
| Square 10, lots 800 and 807 | Blue Bell System, Inc | 1,097.2 | [3] $86,000.00 |
| Square 10, part of lot 808 | Mrs. Marjory Hendricks | 2,244.4 | [3] 60,000.00 |
| Total, properties acquired | | | 146,000.00 |
| 2. Properties to be acquired: | | | |
| Square 10, lot 804 | Adele M. Ward | 845.0 | [4] 500,000.00 |
| Square 10, lots 806 and 810 | Watergate Inn | 10,806.0 | |

[1] Acquired by direct purchase with funds appropriated under sec. 4 of the act of May 29, 1930 (46 Stat. 482), as amended (the Capper-Cramton Act) and allotted by the Commission, with the approval of the Board of Commissioners of the District of Columbia, for the acquisition of lands as additions to the Rock Creek and Potomac Parkway (Cultural Center site).
[2] Estimated.
[3] Acquired by condemnation with funds contributed by the trustees of the National Cultural Center.
[4] Estimated.

ALLOCATION FOR LAND PURCHASE AT CENTER SITE

Senator BIBLE. From this memorandum, I gather that since 1958 you have allocated at least $450,000 for purchase of property within the Kennedy Center site which you had justified to the committee as needed for other purposes. Is this correct?

Mrs. ROWE. I believe that the Commission has alloted $800,000 for the purchase of land in the Center site. This is the item for which we are asking restitution under the supplemental appropriation.

Mr. SHEAR. If I might amplify the chairman's response——

Senator BIBLE. I think the response was that the money wasn't specifically appropriated or earmarked for that—$450,000 of it was not specifically earmarked for that purpose.

REALLOCATION OF LAND ACQUISITION FUNDS FOR CENTER

Mr. SHEAR. Mr. Chairman, at the time the National Cultural Center Act, authorizing the construction of the Center and directing the Planning Commission to acquire the remaining lands in private ownership within the site of the Center, was pending before the Congress, the Commission, with the concurrence of the Board of Commissioners of the District of Columbia, indicated its willingness to the Congress to utilize funds appropriated for land acquisition for the park, parkway, and playground system of the District of Columbia, for purposes of Cultural Center land acquisition and initially allocated or reallocated $300,000 in funds previously appropriated and allocated to other projects for this purpose. That amount was subsequently increased in early 1959 to $355,000.

CAPPER-CRAMTON ACT FUNDS

In the Commission's fiscal year 1960 budget estimates an additional $350,000 was requested. At that time the Congress was advised of the earlier reallocation of $355,000 in accordance with the previously expressed willingness of the Commission and the District Commissioners to utilize Capper-Cramton funds for this purpose. With the appropriation of $350,000 in the fiscal year 1960 Appropriation Act, $705,000 in Capper-Cramton money was available for this purpose.

Subsequently, as a result of the completion of other projects within and below the funds allocated for those projects, the Commission was able to reallocate an additional $95,000, which brought to $800,000 the amount of money allocated for Cultural Center site acquisition.

AUTHORITY TO REPROGRAM OR REALLOCATE FUNDS

Senator BIBLE. Where do you get the authority to reprogram or reallocate, whichever you want to call it? Because you make a presentation to the Appropriations Committee that it is going to take $x$ number of dollars to do this and then you find that that money isn't sufficient, and therefore you reprogram and you use other moneys.

Mr. SHEAR. I think, Mr. Chairman, it is fair to say that $705,000, $355,000 appropriated earlier and programed for other projects and reprogramed for the Center, and the $350,000 specifically appropriated in the fiscal year 1960 program for this purpose, was programed for Kennedy Center site acquisition with the knowledge of the Congress and of the Appropriations Committee.

The other $95,000 represented reprogramings not at the expense of other projects which had been completed, but represented savings from other projects which then became available out of the total authorization for this purpose.

ADVISING APPROPRIATIONS COMMITTEE OF REPROGRAMING OR REALLOCATING

Senator BIBLE. Were the Appropriations Committee advised of this reprograming or reallocation?

Mr. SHEAR. I do not believe so, sir, no.

Senator BIBLE. Are they required to be under the law?

Mr. SHEAR. No, sir; but, of course——

Senator BIBLE. The point is that we appropriated the money for one purpose and then it is used for another purpose, and what happens

to the purpose for which it was originally appropriated? Is that just deferred?

Mr. SHEAR. In the case of the $95,000, that purpose had been achieved within the amounts originally allocated.

Mrs. ROWE. Senator Bible, if you weren't going to ask another question on the $800,000, I would be pleased to make a statement about it.

Senator BIBLE. I would be happy to have you do it, because I am not sure that we have the record in quite as satisfactory a form as we would like it.

### DISTRICT OF COLUMBIA GOVERNMENT PROVIDING CENTER SITE

Mrs. ROWE. When the original Cultural Center Act was passed by the Congress the Planning Commission was directed to acquire the site. It was the understanding at that time, and it is so stated in the bill, that the site is to be provided by the Federal Government. Now, the Planning Commission serves as the purchasing agent for the Federal Government for the park and playground system of the District.

The Capper-Cramton funds which were available to be used are funds that are reimbursed to the Federal Treasury by the District of Columbia government. So, in effect, the $800,000 which was originally appropriated as Federal money has been or will be repaid by the District of Columbia. In effect the site, then, up to date has been provided by the District rather than by the Federal Government.

This is in addition to the more than 4 acres which the District provides as the result of street closings and some excess land left over from the Inner Loop Freeway. Much of this had happened in the Planning Commission before I was a member of the Planning Commission and before many of its present members were appointed. It had been our understanding that this method of site acquisition was a good one and a proper one, but that it was the Congress' intention to reimburse the Capper-Cramton funds which are used for playground and park acquisition in the District of Columbia.

### DEFICIENCY IN PLAYGROUND AND PLAY SPACE

The extra $95,000 that was voted was voted by the Commission with this firmly in mind. All of us know that many parts of the city are deficient in playground and play space, particularly east of the Capitol; $800,000 could go a long way to finishing the park acquisition in the Watts Branch area of Anacostia where land can still be acquired because there is a good bit of open land, but where the population is really exploding, and where recreation areas could provide a good environment for people to live and raise their families.

I would feel that I must make this plea for the restitution of funds to the District Park and Playground Act. It has certainly been the understanding of the Commission since I have been a member, that these funds would be reimbursed for the District Park and Playground program.

Senator BIBLE. Can that be done within the framework of the Capper-Cramton Act, if you have used up all of your authorizied money?

CAPPER-CRAMTON ACT FUNDS EXHAUSTED

Mr. SHEAR. No, sir, the $1,300,000 requested for land acquisition for the parkway and playground system is requested under the authority of section 2 of the act of June 6, 1924, which is the legislation authorizing the Planning Commission to acquire land in the National Capital region for such purposes within the limit of appropriations made available therefor.

The money is not sought under the authority of the Capper-Cramton Act which, as you point out, is exhausted.

Senator BIBLE. I understood you to say it was, so I was using you as my authority.

Mr. SHEAR. That is correct. The funds would be used for Capper-Cramton type purposes, namely, parks and playgrounds in the District of Columbia, but would not be appropriated under the authority of the Capper-Cramton Act, but under the authority of the act of June 6, 1924.

PLAYGROUND ACQUISITION FUNDS

Senator BIBLE. I think the record is clear on that. And your position is that those funds should be restored because you need funds for additional playground acquisition, do I understand that correctly?

Mrs. ROWE. That is correct, Senator.

Senator BIBLE. And you are short in playground acquisition funds how much money that has been reprogramed?

Mr. SHEAR. $800,000.

Senator BIBLE. $800,000 is the figure?

NATIONAL CULTURAL CENTER FUNDS

The CLERK. In fiscal 1960 the Congress appropriated $350,000 under the justification of the National Capital Planning Commission specifically for the National Cultural Center. The question is, of the $800,000, why should that $350,000 be replaced, since that wasn't appropriated for any thing but the National Cultural Center.

Mrs. ROWE. It went into the Capper-Cramton funds which were set up for the purpose of playground and park acquisition within the District. I am not a lawyer, but I thought that this was a method of making the funds available for the site acquisition, that this was an existing, going program, and those funds could be added to it.

CAPPER-CRAMTON FUNDS

Mr. DUTTON. They did use up part of the authorization of the Capper-Cramton funds. So that we are inhibited from asking further funds under Capper-Cramton to replace that.

Senator BIBLE. Will you repeat that last answer, and I think we will have the record in satisfactory shape.

Mr. DUTTON. Therefore, we are inhibited under the Capper-Cramton program from asking for these additional funds because they have been utilized already on behalf of the Cultural Center.

Senator BIBLE. So for that reason your position is that the restoration of the full $800,000 in order to meet the original stated purpose of creating more recreation areas and playgrounds in the District of Columbia; is that a correct statement?

Mrs. ROWE. That is correct.

Senator BIBLE. And because, among other things, the full $16 million in the Capper-Cramton Act that has been set aside for those purposes has been completely exhausted. I think I understand it now. And I want to get the record abundantly clear on it so that we can explain it for our colleagues.

Mr. Chairman, any questions?

Senator HAYDEN. No questions.

Senator BIBLE. Thank you very much Mrs. Rowe for a very able presentation. I hope we can be of help.

Do we have any further testimony on the National Capital Planning Commission or the Regional Planning Commission?

Mr. PICKENS. Mr. Chairman, I don't know whether you wish to hear the justification for the three positions.

Senator BIBLE. Yes, indeed I do, because I think you should at least furnish the justification for the record.

### REGIONAL PLANNING COUNCIL

Mr. PICKENS. We certainly ought to justify the three.

I am sure you are familiar with the responsibility of the Regional Planning Council. And to answer your question on implementation, at the present time I think at least half of the members of the Regional Planning Council are also members of their local governing bodies. I, for example, am a member of the Alexandria City Council. And since your studies, most of this has taken place. As you know, the Planning Council moved very slowly during the early years, and it has been the last several years that it has had a much greater development, and its activities have greatly increased. And we have a general development plan now underway. We have a study of Federal facilities, a review of Federal facilities in the suburbs, and we have a review of the local and subregional plans and proposals.

### JUSTIFICATION FOR NEW POSITIONS

And we also have a review of special purpose agency plans such as the National Capital Transportation Agency. We reviewed all the open-space applications, of which there have been nine in number, for a total cost of about $16 million. And we have the preparation of special studies and reports. And I would ask our director just very briefly to give you the justification for this one new urban planner, the GS–12, and two new stenographic positions, a GS–5 and a GS–6.

Senator BIBLE. Certainly. We would be very happy to have you do that, sir.

Mr. HELLER. Our staff, Mr. Chairman, is composed of three planners aside from direction, and supporting stenographic help. We are hoping this coming fiscal year to subdivide the staff internally into four functional categories: One, the Advanced Planning Division; two, a Regional Coordination Division; three, a Regional Transportation Planning Division, and lastly, a Regional Research Division.

### URBAN PLANNER POSITION

The additional position is needed to fill the transportation planning needs and to head up this division. And the regional planning council has exercised a rather historic transportation planning function by

being one of the co-authors of the MTS study. We also reviewed such special purpose agencies plans as the National Capital Transportation Agency. In addition, we work with and through the local and sub-regional planning agency of which there are 14 besides ourselves of the National Capital region.

### Stenographic Positions

We work with the highway departments of the various jurisdictions and the States, so that our transportation and highway responsibilities, and review responsibilities, are on the definite increase. We hope to use the present three positions to fill the other of the four divisions. In addition, we have at the present time just one secretary servicing five professionals. And this is the reason for asking for the additional two stenographers.

Senator Bible. That would seem to be reasonable. You have yourself, a deputy director, three urban planners, and one statistic clerk. And so you have one secretary in effect taking dictation from about five of you.

Mr. Heller. Yes, at present, and of course, from time to time we lean on the staff of the National Capital Planning Commission because we simply get into a bind on this.

### Transportation Planner Position

Senator Bible. I can certainly understand that problem. And you are programing an additional transportation planner?

Mr. Heller. Yes, sir. And we are also in transportation, as the regional planner council, working with and through the suburban jurisdiction as well as the National Capital Planning Commission and the District of Columbia, and have been taking the lead in attempting to comply with the Federal Aid Highway Act of 1962. We have already promulgated a memorandum of agreement relative to establishing a Transportation Advisory Committee for the area as required by the Federal Aid Highway Act of 1962. Our role in this particular aspect is definitely on the increase.

The Regional Planning Council has been operating at the rate of approximately $0.04 per capita; and we are asking for fiscal 1965 only $0.06 per capita. The following table illustrates the relative position of the Regional Planning Council when compared with other planning agencies of the National Capital region which serve fewer people and have much smaller geographic areas of responsibility.

(The table referred to follows:)

*Financial ranking of region's planning agencies (fiscal 1963 budgets and estimated 1963 populations)*

| Rank | Name | Budget | Population served | Cost per capita |
|---|---|---|---|---|
| 1 | Maryland-N.C.P.and P.C. | $964,800 | 770,000 | $1.25 |
| 2 | NCPC | 467,000 | 795,000 | .59 |
| 3 | Fairfax County | 379,500 | 328,000 | 1.16 |
| 4 | Arlington County | 228,700 | 175,000 | 1.31 |
| 5 | Northern Virginia R.P. & E.D.C. | 100,000 | 705,000 | .14 |
| 6 | NCRPC | 83,800 | 2,323,000 | .04 |
| 7 | Alexandria | 70,000 | 102,000 | .69 |
| 8 | Prince William County | 45,700 | 62,000 | .74 |
| 9 | Loudoun County | 33,300 | 27,000 | 1.23 |
| 10 | Rockville, Md. | 24,000 | 33,000 | .73 |
| 11 | Falls Church, Fairfax, and Vienna | 25,900 | 43,000 | .60 |
| | Total, National Capital region | 2,411,700 | 2,323,000 | 1.04 |

Senator BIBLE. I very much appreciate your testimony.

Mr. PICKENS. I will submit my statement to save time.

Senator BIBLE. The statement will be incorporated in the record.

(The statement referred to follows:)

STATEMENT BY JOHN K. PICKENS, CHAIRMAN, NATIONAL CAPITAL REGIONAL PLANNING COUNCIL

The Regional Planning Council has been in existence for 11 years, and, as the official top level planning agency for the National Capital Region, it has the broadest area of responsibility of all planning agencies in the region which encompasses approximately 2,400 square miles of area and contains two and a quarter million people.

The Regional Planning Council's primary responsibilities are to assemble and maintain a general plan for the development of the region and to reconcile the land-use requirements of the Federal installations beyond the District boundaries with the land-use requirements of/in each locality. Therefore, the Regional Planning Council's function is also that of a coordinator and catalyst serving as a central intelligence operation and clearinghouse on all planning and development matters having regional significance.

Like its sister agency, the National Capital Planning Commission, it was created by Public Law 592 in 1952. It was not until 1954, however, that the Planning Council had its own Director and budget. At the present time the Regional Planning Council has a total of seven staff people, which includes five professionals, one secretary, and one statistical clerk.

Because of the responsibility placed upon the Regional Planning Council by the enabling act, and the scope of the National Capital area and problems with which the Council must grapple, it has had difficulty over recent years in functioning as it was intended. Because of this the Council is now attempting to organize its staff internally on a functional basis in the hope of improving its performance and to serve the region and the various governmental jurisdictions more effectively. Specifically, in fiscal 1965 the Council hopes to subdivide its staff into four basic functional categories or divisions. These are (1) Advanced Planning Division, responsible for carrying out comprehensive planning and the development of a 1980, and later a year 2000, general plan; (2) Regional Coordination Division, responsible for the review of all current local, subregional, and Federal plans to guarantee the harmonious and coordinated relationship of these proposals to insure that they properly conform to the overall framework as prepared by the Comprehensive Planning Division; (3) Regional Transportation Planning Division, to carry out the traditional responsibilities of the Regional Planning Council by virtue of its participation in the 1959 mass transit study, the assistance which the Council provided in establishing the National Capital Transportation Agency, and its proposals, and to function as the continuing liaison with various other local and regional transportation bodies, to guarantee that all proposals are properly related to the comprehensive plan; and (4) Regional Research Division, to assemble and maintain adequate data on a regional basis pertaining to population, housing, land use, and the like together with projections in each to key years.

The Regional Research Division will provide the support material and data necessary for the operation of the other three divisions, and any other local, subregional, or Federal agency needing such information.

To effect this internal organization, the Regional Planning Council will need one other professional position allocated to it, and two supporting stenographers. At the present time the Planning Council functions with only one secretary and one statistical clerk. The secretary, in turn, is responsible for servicing four professionals, and also the urban planner who is allocated to the open space project when he is working on day-to-day Council responsibilities.

During the past year the staff of the Planning Council have also attempted to create greater understanding and support for regional planning and hope to promulgate a series of reports and releases, including newsletters from time to time, of vital information and material necessary for the successful overall planning of the region. In addition, the Council staff have begun to attend the meetings of the various governing bodies throughout the region, as well as those of the official planning agencies. Through these efforts a marked improvement has been noticed in the understanding of the local problems by the regional technicians, as well as an understanding and appreciation of the regional problems by local people.

The Council sincerely solicits your wholehearted cooperation and support in the approval of our 1965 fiscal submission in carrying out this next step toward improving planning and cooperation for the National Capital Region.

Senator BIBLE. Senator Young has left with me a number of questions to which he desires responses. Will you please supply them for the record.

Mr. DUTTON. Yes, sir.

(The material referred to follows:)

POLICY OF COMMISSION WITH RESPECT TO LAND ACQUISITIONS FOR CENTER

1. Q. What will be the policy of the National Capital Planning Commission with respect to land acquisitions for the John F. Kennedy Center for the Performing Arts?

A. The Commission will first attempt to acquire lands in private ownership required in connection with the Kennedy Center by negotiation at their fair market values, as established by qualified independent real estate appraisers on behalf of the Commission, and within funds available to, and programed by the Commission for this purpose. If such negotiations are unsuccessful, the Commission will acquire such property by condemnation and will, when it deems it necessary and in the best interests of the United States, file a declaration of taking and deposit into the registry of the court the estimated just compensation for the property, thereby vesting title immediately in the United States. These land acquisition policies for the Kennedy Center are identical to the policies of the Commission in all of its land acquisition programs.

2. Q. In acquiring property, what compensation will be provided to business establishements in the way of damages for loss of business?

A. No compensation can be paid for loss of business, since this is not an element in establishing fair market value for real property acquired by the United States for a public purpose.

3. Q. What compensation will be provided to holders of the leasehold interest?

A. Under certain circumstances lessees may have a compensable interest in real property acquired by the United States. Whether such an interest exists depends upon the terms of the lease and the relationship of the rent reserved under the lease to the rental value of the property if it were unencumbered by the lease.

4. Q. In instances where the lessee has made substantial improvements to the leased property, will you compensate him for these improvements?

A. Ordinarily no compensation will be paid to the lessee for improvements to the property made by the lessee, unless the lessee has retained title to such improvements under the terms of the lease. Such improvements otherwise become part of the realty and their value forms part of the fair market value of the property itself.

5. Q. Will the holders of leasehold interests be reimbursed for moving expenses and loss of tangible personal property resulting from their displacement?

A. The Commission is without authority to make relocation payments covering moving expenses and actual direct losses of property such as are made to

displacees in urban renewal areas under the authority of section 106(f) of the Housing Act of 1949, as amended (42 U.S.C. 1456).

Senator BIBLE. Thank you very much. I appreciate your appearing here.

Our next hearing will be on the National Capital Transportation Agency, Mr. Stolzenbach, Mr. Quenstedt, Mr. Seeger, and Mr. Tomey.

NATIONAL CAPITAL TRANSPORTATION AGENCY

## STATEMENT OF C. DARWIN STOLZENBACH, ADMINISTRATOR; ACCOMPANIED BY WARREN D. QUENSTEDT, DEPUTY ADMINISTRATOR; EDWIN H. SEEGER, ASSISTANT ADMINISTRATOR AND GENERAL COUNSEL; AND J. NEAL TOMEY, DIRECTOR, OFFICE OF ADMINISTRATION, NATIONAL CAPITAL TRANSPORTATION AGENCY

1965 BUDGET REQUEST

Senator BIBLE. The National Capital Transportation Agency estimates its 1965 requirements for salaries and expenses at $500,000, just half of the amount appropriated for fiscal year 1964. The justification submitted in support of this request will be included in the record.

(The justification statement referred to follows:)

SALARIES AND EXPENSES

| | |
|---|---|
| Appropriation, fiscal year 1963 | $3,000,000 |
| Actual obligations, fiscal year 1963 (includes transfer of funds for rent) | 2,678,000 |
| Appropriation, fiscal year 1964 | 1,000,000 |
| Unobligated balance lapsing (estimated savings) | −100,000 |
| Adjusted base, fiscal year 1965 | 900,000 |
| Summary of differences, fiscal year 1965: | |
| Decrease in personnel compensation and personnel benefit costs resulting from lower staff levels | −226,000 |
| Decrease in contracts and services of other agencies | −140,000 |
| Decrease in miscellaneous administrative support items | −34,000 |
| Budget estimate, fiscal year 1965 | 500,000 |

*Analysis by object of expense*

| | | Estimate, 1964 | Estimate, 1965 | Difference, increase (+) or decrease (−) |
|---|---|---|---|---|
| 11 | Personnel compensation | $605,000 | $394,000 | −$211,000 |
| 12 | Personnel benefits | 45,000 | 30,000 | −15,000 |
| 21 | Travel and transportation of persons | 13,000 | 6,000 | −7,000 |
| 23 | Rent, communications, and utilities | 24,000 | 15,000 | −9,000 |
| 24 | Printing and reproduction | 10,000 | 3,000 | −7,000 |
| 25 | Other services | 140,000 | 24,000 | −116,000 |
| | Services of other agencies | 45,000 | 21,000 | −24,000 |
| 26 | Supplies and materials | 15,000 | 6,000 | −9,000 |
| 31 | Equipment | 3,000 | 1,000 | −2,000 |
| | Total obligations | 900,000 | 500,000 | −400,000 |

### Highlight Statement

The Agency, established pursuant to Public Law 86–669 (74 Stat. 538), is responsible for preparing a comprehensive transit development program for the National Capital region to meet the projected expansion of the region's economy and population.

As required by the National Capital Transportation Act of 1960, the Agency, on November 1, 1962, submitted a report to the President proposing a regional rapid transit system and containing recommendations on finance and organization. This report was transmitted by the President to the Congress on May 27, 1963, together with recommended legislation that would authorize construction of the rapid transit system. The administration's bill was introduced in the House and in the Senate and hearings were held on the bill before Subcommittee No. 6 of the House Committee on the District of Columbia. Thereafter, the chairman of Subcommittee No. 6 introduced a bill to authorize construction of an abbreviated version of the rapid transit system proposed by the Agency and recommended by the President. This bill was reported favorably by the House District Committee. On December 9, 1963, the House voted to recommit the bill.

The President, in transmitting the present budget and in light of the vote to recommit the bill, called for a "redoubling of efforts to find an acceptable program which will permit a transit development plan to proceed." The President's message further directed the Agency, together with other Federal agencies, to work with affected local jurisdictions in order to find an acceptable program.

Discussions with the managers of the rapid transit bill and with other members of Congress, and analysis of the debate preceding the vote to recommit, indicate that in order to find an acceptable program, the Agency will in all likelihood have to alter substantially its earlier proposals.

Specifically, there are four major areas in which the Agency must consider changes or modifications:

#### FEDERAL-LOCAL SHARE

The Agency must consider means of decreasing the proposed Federal share of the cost of a rapid transit system and of increasing the shares to be paid by the local jurisdictions of the National Capital region.

#### SIZE AND COST OF THE SYSTEM

The Agency must prepare estimates for alternative rapid transit systems, including systems that would be smaller and less costly than the system previously proposed by the Agency or by the House District Committee.

#### OPERATION OF THE SYSTEM

Consideration must be given to the question of how the system should be operated, whether publicly or privately.

#### LABOR PROTECTION

The Agency must consider the question of the protection of labor's rights as contemplated by section 205(a)(2) of the National Capital Transportation Act of 1960.

In his budget message, the President also stated that he is confident "that an acceptable program can be formulated at this session of the Congress." The Agency will do everything possible to achieve that goal. The present budget assumes that if Congress does not act, the Agency's studies and its efforts to find answers to the problems outlined above must continue throughout fiscal year 1965.

### Explanation of the Estimates

As noted previously, there are four main areas in which the Agency must consider possible changes in its original proposals. The work that the Agency must do in each of these areas is as follows:

#### FEDERAL-LOCAL SHARE

Under the Agency's original proposal the local jursidictions would have contributed $60 million in grants for the $793 million system and $21.7 million in grants for the abbreviated $400.6 million system that was approved by the House District Committee. In each case, the additional funds required were to be

raised by the public sale of revenue bonds underwritten as to principal and interest by the Federal Government. The Agency must consider ways of placing more of the financial burden of the system on the localities and less on the Federal Government. This would be accomplished either by increasing the local grant share or having the local jurisdictions share in the borrowing, and possibly both. Various formulas and methods for this sharing must be devised and thereafter be discussed with the congressional committees concerned, with representatives of the local jurisdictions and with the Bureau of the Budget, so that an acceptable revised formula can be presented to the Congress.

#### SIZE AND COST OF THE SYSTEM

Alternatives to the abbreviated $400.6 million system must be developed and these too must be discussed with the Congress, the Bureau of the Budget, and the localities. For each such system the Agency must prepare (*a*) capital cost estimates, (*b*) traffic estimates, (*c*) operating cost estimates, (*d*) a profit and loss estimate for a fixed future year, and (*e*) financial tables showing the estimated bond payout date.

#### OPERATION OF THE SYSTEM

The recommitted bill was silent on the question of how the system would be operated, whether publicly or privately and, if privately, whether or not bus and rapid transit services should be under the same management. The Agency will study the experience of other cities in this regard, with particular attention to major cities in which there is public ownership and private operation. It will consider such alternative methods of operation as leasing, fixed-fee contracts and incentive contracts, and also the financial advantages of integrated operation of bus and rapid transit.

#### LABOR PROTECTION

The recommitted bill did not include provisions for labor protection. Section 205(a)(2) of the National Capital Transportation Act would permit the construction of a rapid transit system without such provisions but it requires that an appropriate labor policy be approved by the Congress before operation of the system may begin. The Agency will give further consideration to the question of appropriate labor provisions, whether under public or private operation. These will be discussed with the congressional committees concerned, the Department of Labor, the Bureau of the Budget, and the interested unions.

The budget approved by the President would provide an appropriation of $500,000 and a staff of 35 full-time positions for fiscal year 1965—roughly half the Agency's budget for the current fiscal year. The distribution of the staff and the funds will be discussed by activities, as follows:

### Traffic and Financial Planning

#### OFFICE OF PLANNING

These estimates provide for 8 full-time positions in the Office of Planning—a reduction of 10 positions below the current year authorization of 18 positions.

The Office of Planning will propose the general route configuration of the various alternative rapid transit systems to be considered and will prepare traffic estimates for each such system.

The Office of Planning will continue its efforts to cooperate with local governments and their planning bodies which are in the process of incorporating rapid transit in their plans. The Agency has received a number of requests for such cooperative efforts and it is anticipated that these will continue.

The Office is working with the area highway departments and local governments on the preparation of areawide traffic forecasts and transportation plans. The Agency will be involved in collecting and tabulating data and will consult with the area highway departments and local governments on such problems as the means of tabulating data and forecasting traffic.

The estimate of $86,084 for the Office of Planning will provide for the staff of eight full-time positions and other support costs and includes $5,000 for special computer services to be performed by other government agencies.

#### OFFICE OF FINANCE

These estimates provide for five full-time positions in the Office of Finance—a reduction of three positions below the current authorization of eight positions.

The Office of Finance will prepare the operating cost estimates, profit and loss estimates and the financial tables for the various alternative systems. It will have primary responsibility for the development of the alternative financing formulas and will assist in the study of public and private operation.

As time permits, the Office of Finance will continue work previously begun on (a) development of a zone fare collection system, (b) examining the feasibility of constructing parking garages at certain stations, and (c) developing the basis for a prospective future agreement between the rapid transit operator and the local bus companies concerning fare-distribution arrangements.

The estimate of $56,377 for the Office of Finance will provide for five full-time positions and includes $8,000 for contracts.

### Engineering Plans

#### OFFICE OF ENGINEERING

These estimates provide for a staff of seven full-time personnel in the Office of Engineering, a reduction of seven positions below the number authorized for the current year.

The Office of Engineering will provide the capital cost estimates, and the schedules on which the operating cost estimates are based, for use in the analysis of alternative rapid transit systems. It will also consider the engineering feasibility of these alternative systems.

As time permits, the Office of Engineering will continue work previously begun on (a) preparing a more detailed construction schedule, including a breakdown of anticipated construction contracts; and (b) research in train control equipment, trackwork, and transit vehicle design. In addition, in order to preserve transit rights-of-way and land for future station locations, a number of agencies in the region having capital improvement programs have followed the practice of forwarding their plans to the Agency to see whether they coordinate with the Agency's plans. The plans are reviewed by the Office of Engineering and thereafter discussed with the local agencies. This work is expected to increase in fiscal year 1965, due to accelerated highway and other public works programs in the National Capital region.

The estimate of $81,840 for the Office of Engineering provides for a staff of seven full-time personnel and other support costs.

### Executive Direction and Administration

The estimates provide $275,699 for executive direction activities of the Agency, including the Office of Administrator and Deputy Administrator, the Office of Assistant Administrator and General Counsel, the Office of Public Information and Community Services, and the Office of Administration.

#### OFFICE OF ADMINISTRATOR AND DEPUTY ADMINISTRATOR

The estimates provide $115,212 for five full-time personnel for this office, a reduction of two positions below the current authorization. This office includes the two statutory positions and three support personnel. Funds have also been included for use by the Federal representative appointed pursuant to title III of the National Capital Transportation Act to negotiate an interstate compact for the solution of problems of a regional character.

#### OFFICE OF THE ASSISTANT ADMINISTRATOR AND GENERAL COUNSEL

The estimates provide $49,832 for three full-time positions a reduction of five positions below the current authorization. In addition to directing the Agency's legal work, the General Counsel serves as Assistant Administrator and, as such, is responsible for coordinating the Agency's planning, finance, and engineering programs. The Office of General Counsel will have primary responsibility for the Agency's work with respect to labor and to public versus private operation problems previously discussed.

#### OFFICE OF PUBLIC INFORMATION AND COMMUNITY SERVICES

The estimates provide $37,165 for three full-time positions, a reduction of three positions below the current authorization. The Office of Public Information and Community Services has charge of the Agency's public information and community relations program. Its workload is generated by the various media—press, radio, and television—as well as by public organizations. The Agency has had an increasing number of requests for speakers, for statistical data, and for cooperation with community educational activities. The Office is now working

with federations and groups representing more than 500 organizations in the region. Requests for information or services are at the rate of 3,900 per year and are increasing.

OFFICE OF ADMINISTRATION

The estimates provide for $73,490 for four full-time positions, a reduction of five positions below the current authorization. The Office of Administration is responsible for all internal management services including personnel, budget and fiscal, mail and records, space, equipment, and similar matters. The estimate also includes $16,000 to reimburse the General Services Administration for payroll, procurement, disbursing, and other housekeeping services furnished to the Agency.

SUMMARY OF DISTRIBUTION BY OBJECT OF EXPENSE

PERSONNEL COMPENSATION

The estimates include $394,000 for personnel compensation consisting of $375,000 for 35 full-time positions, $17,000 for positions other than permanent such as the 5-man statutory advisory board, $1,500 for payments in excess of 52-week base (1 day in fiscal year 1965) and $500 for holiday and overtime pay, payments to other agencies for reimbursable details, terminal leave payments, and any other miscellaneous personnel costs.

OTHER OBJECTS

1. $30,000 for personnel benefits required by law, including retirement contributions, health benefits, life insurance, and social security.
2. $6,000 for official travel expenses and per diem costs for the regular staff and the part-time advisory board.
3. $15,000 for rent, communications and utilities. The principal item in this account is telephone services.
4. $3,000 for printing and reproduction services.
5. $24,000 for special contracts consisting of $10,000 for the Office of the Administrator for allocation to the Federal Representative for Interstate Compact Negotiations, $8,000 for special finance studies, and $6,000 for the Office of Administration for maintenance agreements for equipment and laborsaving devices, and other miscellaneous support items.
6. $21,000 for services of other Government agencies including $16,000 for reimbursement to the General Services Administration for housekeeping support, and $5,000 for computer services by the National Bureau of Standards, Department of Commerce.
7. $6,000 for office and engineering supplies and materials.
8. $1,000 for equipment including any replacement office equipment, laborsaving devices, drafting and engineering equipment.

*Program and financing*

[In thousands of dollars]

| | 1963 actual | 1964 estimate | 1965 estimate |
|---|---|---|---|
| Program by activities: | | | |
| 1. Traffic and financial planning | 608 | 338 | 170 |
| 2. Engineering plans | 1,223 | 244 | 104 |
| 3. Executive direction and administration | 468 | 443 | 304 |
| Total program costs, funded [1] | 2,299 | 1,025 | 578 |
| Change in selected resources [2] | +272 | −125 | −78 |
| Total obligations | 2,571 | 900 | 500 |
| Financing: | | | |
| Unobligated balance lapsing | 322 | 100 | |
| New obligational authority | 2,893 | 1,000 | 500 |
| New obligational authority: | | | |
| Appropriation | 3,000 | 1,000 | 500 |
| Transferred to "Operating expenses, Public Building Service," General Services Administration for space costs (76 Stat. 728) | −107 | | |
| Appropriation (adjusted) | 2,893 | 1,000 | 500 |

[1] Includes capital outlay as follows: 1963, $18,000; 1964, $3,000; 1965, $3,000. Excludes adjustments of prior year costs of $8,000.

[2] Selected resources as of June 30 are as follows: Unpaid undelivered orders, 1962, $111,000 (1963 adjustments, −$15,000); 1963, $368,000; 1964, $243,000; 1965, $165,000.

*Object classification*

[In thousands of dollars]

| | | 1963 actual | 1964 estimate | 1965 estimate |
|---|---|---|---|---|
| 11 | Personnel compensation: | | | |
| | Permanent positions | $555 | $556 | $375 |
| | Positions other than permanent | 168 | 34 | 17 |
| | Other personnel compensation | 37 | 15 | 2 |
| | Total personnel compensation | 760 | 605 | 394 |
| 12 | Personnel benefits | 47 | 45 | 30 |
| 21 | Travel and transportation of persons | 18 | 13 | 6 |
| 23 | Rent, communications, and utilities | 18 | 24 | 15 |
| 24 | Printing and reproduction | 37 | 10 | 3 |
| 25 | Other services | 1,561 | 140 | 24 |
| | Services of other agencies | 88 | 45 | 21 |
| 26 | Supplies and materials | 23 | 15 | 6 |
| 31 | Equipment | 19 | 3 | 1 |
| | Total obligations | 2,571 | 900 | 500 |

Senator BIBLE. And Mr. Stolzenbach, your statement will be incorporated in full in the record.

(The statement referred to follows:)

STATEMENT OF C. DARWIN STOLZENBACH, ADMINISTRATOR OF THE NATIONAL CAPITAL TRANSPORTATION AGENCY

Mr. Chairman and members of the committee, the estimates of the National Capital Transportation Agency provide for an appropriation of $500,000 for the fiscal year 1965. This appropriation will cover the salaries of 35 full-time positions and expenses of the Advisory Board as well as other expenses such as personnel benefits required by law, transportation and per diem costs incident to temporary duty travel of the staff, communication services, office supplies, printing and reproduction, equipment, and other necessary expenses.

The appropriation requested for fiscal year 1965 represents a decrease of 50 percent from the amount provided for these same purposes during the current fiscal year. The number of full-time positions is reduced from 70 positions authorized this year to 35 positions in fiscal year 1965.

As required by the National Capital Transportation Act of 1960, the Agency, on November 1, 1962, submitted a report to the President proposing a regional rapid transit system and containing recommendations on finance and organization. This report was transmitted by the President to the Congress on May 27, 1963, together with recommended legislation that would authorize construction of the rapid transit system. The administration's bill was introduced in the House and in the Senate and hearings were held on the bill before Subcommittee No. 6 of the House Committee on the District of Columbia. Thereafter, the chairman of Subcommittee No. 6 introduced a bill to authorize construction of an abbreviated version of the rapid transit system proposed by the Agency and recommended by the President. This bill was reported favorably by the House District Committee. On December 9, 1963, the House voted to recommit the bill.

The President, in transmitting the present budget and in light of the vote to recommit the bill, called for a "redoubling of efforts to find an acceptable program which will permit a transit development plan to proceed." The President's message further directed the Agency, together with other Federal agencies, to work with affected local jurisdictions in order to find an acceptable program.

Discussions with the managers of the rapid transit bill and with other Members of Congress, and analysis of the debate preceding the vote to recommit, indicate that in order to find an acceptable program, the Agency will in all likelihood have to alter substantially its earlier proposals.

Specifically, there are four major areas in which the Agency must consider changes or modifications:

FEDERAL-LOCAL SHARE

The Agency must consider means of decreasing the proposed Federal share of the cost of a rapid transit system and of increasing the shares to be paid by the local jurisdictions of the National Capital region. Various financing formulas

are being studied. And, since any change in the financing formula originally recommended by the Agency, will be of concern to the local jurisdictions, discussions with officials of these jurisdictions are required.

SIZE AND COST OF THE SYSTEM

The Agency is preparing estimates for alternative rapid transit system, including systems that would be smaller and less costly than the system previously proposed by the Agency or by the House District Committee. For each system, revised estimates must be made of capital costs, operating costs and operating schedules and traffic and revenues and a long-range profit and loss estimate must be prepared. The estimates must be discussed with the congressional committees concerned, with the Bureau of the Budget, and with the jurisdictions of the region.

OPERATION OF THE SYSTEM

Consideration is being given to the question of how the system should be operated, whether publicly or privately, and, if privately, in what manner and under what terms and conditions. This work includes analyses of several major cities whose public transportation systems are publicly owned and privately operated.

LABOR PROTECTION

The Agency is considering the question of the protection of labor's rights as contemplated by section 205(a)(2) of the National Capital Transportation Act of 1960. Discussions are being had with labor representatives, with Members of Congress, officials of the Department of Labor, and of the Bureau of the Budget.

In his budget message, the President stated that he is confident "that an acceptable program can be formulated at this session of the Congress." The Agency will do everything possible to achieve that goal. The present budget assumes that if Congress does not act this session, the Agency's studies and its efforts to find answers to the problems outlined above must continue throughout fiscal year 1965.

In summary, I am convinced that an appropriation of $500,000 represents the best estimate of our requirement for funds for fiscal year 1965 based on our analysis of the current mission of the Agency. Members of my staff are with me today and we will be pleased to answer any questions you have with respect to our specific programs and the appropriation request.

HIGHLIGHT STATEMENT

Senator BIBLE. And I would be very happy to have you highlight it; and obviously put particular emphasis upon the desirability of additional funds for your agency, in view of the action of the House of Representatives last year in recommiting the bill to the House committee. I can say from my only personal standpoint I hope that this agency is kept alive, so that you do have the opportunity of having another chance of attempting to save a transit bill.

I believe that inevitably we must face up to a balanced system in the District of Columbia and that some mass transit is part of the answer. But I would like to have you put your main emphasis—because this will be the hard core question that we will have to answer—on why you need $500,000 when they have recommitted the bill to the District of Columbia Committee on the House side. Before you do that, tell me this: How much has been expended by the National Capital Transportation Agency since its creation?

HISTORY OF AGENCY APPROPRIATIONS

Mr. STOLZENBACH. May I call on our Director of Administration, Mr. Tomey, for that figure?

Mr. TOMEY. Operations of the Agency began in fiscal year 1961 with an appropriation of $250,000. In that year our obligations totaled $207,000.

In fiscal year 1962 we received a regular appropriation of $875,000 and then a supplemental appropriation of $85,000, all of which totaled $960,000. That year we obligated $958,000.

In fiscal year 1963 there was an appropriation of $3 million, with obligations of roughly $2.6 million.

For the current period, fiscal year 1964, we received an appropriation of $1 million, and our best estimate at this time indicates an actual expenditure of approximately $800,000.

In preparing the estimates for 1965 and in the schedules you have before you, we indicated that there would be a savings of approximately $100,000. We now see an additional hundred thousand, so we anticipate a total expenditure of approximately $800,000 this year.

Senator BIBLE. Up to June 30 of this year, how much money will the National Capital Transportation Agency have expended or obligated, how much has the National Capital Transportation Agency cost the U.S. taxpayers?

TRANSIT STUDIES' EXPENDITURES

Mr. TOMEY. Approximately $5 million.

Senator BIBLE. And will there be some obligated funds on June 30 of this year, some contractural obligations that carry on past June 30, 1964?

Mr. TOMEY. None of any consequence.

Senator BIBLE. You have expended $5 million to date on the National Capital Transportation Agency. Prior to that time how much money has the U.S. Congress appropriated for transit studies?

Mr. TOMEY. I can only speak from general knowledge.

Senator BIBLE. You can supply it for the record. Give us a rough figure.

MASS TRANSPORTATION STUDY OF 1959

Mr. TOMEY. I believe that approximately $600,000 was expended by the National Capital Planning Commission for the Mass Transportation Study of 1959.

Senator BIBLE. That is the study I had in mind. I was under the impression that the price tag was a little higher, I may be wrong.

Mr. TOMEY. That is the figure that has been cited to me, but I have no direct knowledge since it antedates this Agency.

Senator BIBLE. Supply it for the record and correct your testimony if there is need for correction.

(The information referred to follows:)

The estimate of $600,000 for the cost of the Mass Transportation Survey of 1959 consists of direct appropriations to the National Capital Planning Commission totaling $450,000 from fiscal year 1955 through fiscal year 1959 and $150,000 representing a proportionate allocation of staff time of personnel of the National Capital Planning Commission, the Bureau of Public Roads of the Department of Commerce, and other Federal agencies engaged in preparing the study.

TRANSIT DEVELOPMENT PROGRAM

Mr. STOLZENBACH. Mr. Chairman, the 1960 act creating the Agency gave us the task of devising a transit development program for this region. Congress did that because it felt a transit system was needed. It is still needed. The Agency has gone a long way toward the ful-

fillment of this task, but it still remains to be completed. That is the purpose for the appropriation we are seeking for fiscal year 1965.

The Agency's program has been endorsed by the President and is now pending before the District of Columbia Committees of both the Senate and the House. As a result of consideration in the House thus far we are aware that some important changes will have to be made in the plan. We are working very hard on these changes, but we can't predict precisely how long it is going to take to find acceptable solutions.

HOUSE DEFEAT OF TRANSIT BILL

Senator BIBLE. May I ask one question at that point? I have divided feelings as to whether or not another effort should be made to pass a transit bill at this session, in view of the fact that it was overwhelmingly defeated by a vote of—what was that vote?

Mr. QUENSTEDT. 276 to 78, sir.

Senator BIBLE. I realize that there were many factors in it. I am for a transit bill. I would just like to have your best judgment as to the timetable that you intend pursuing before the House District Committee. This is March, and I don't know how many more months there are left in the session, but obviously time is running. When will you be in a position to present another plan to the House District Committee, or to the Senate District Committee?

CONSIDERATION OF REVISED PLAN

Mr. STOLZENBACH. We are working on a timetable that would permit consideration of a revised plan as soon as the House leaders, House District Committee leaders, and the political leaders of the region and the administration feel that we have developed an acceptable plan.

AREAS OF DIFFICULTY

Now, there are a number of problem areas where significant work has to be done. First of all, there is the question of the size and scope of the transit system.

Second, there is the question of the relative amount of Federal versus local contribution to the financing of the system.

Third, there is the question of protection for organized labor.

And fourth, there is the question of the mode of operation——

Senator BIBLE. You mean private versus public?

Mr. STOLZENBACH. The question of private versus public.

NATIONAL MASS TRANSIT LEGISLATION

Senator BIBLE. And there is also the problem of whether or not the Congress should speak on an overall mass transit plan too, isn't there? Isn't that somewhat involved in the overall considerations? What I have reference to is an overall bill to take care of mass transit nationwide pending in the House.

Mr. STOLZENBACH. You are referring to the national bill?

Senator BIBLE. The national bill.

Mr. STOLZENBACH. Certainly that does get involved in any consideration of our proposals although they are entirely separate and have no direct relationship.

Senator BIBLE. Keeping all those factors in mind I certainly want to be helpful to you, because I am for a mass transit system. But I am just wondering whether or not you will have your case prepared or a new plan perfected during this session of the 88th Congress.

Mr. STOLZENBACH. Senator, I think it is possible that we could have. I cannot sit here today and tell you with assurance that we will have.

Senator BIBLE. I don't expect you to guarantee it.

Mr. STOLZENBACH. We are doing everything that we can to be ready to present a program to Congress if the problems I have mentioned can be worked out in time.

### PRESENTATION OF PLAN TO CONGRESS

Senator BIBLE. And I commend you for that, because I think we must make a further effort to do everything humanly possible to acquire a mass transit system for the District of Columbia. And my only question is to try to determine as best I can whether or not your case will be ready for presentation on either side of the Hill in 30, 60, or 90 days. This is March 1964, and I am just wondering whether or not you will be prepared within 30, 60, or 90 days.

Can you give us any timetable better than you have?

Mr. STOLZENBACH. I think we could possibly be prepared within the next 30 days.

Senator BIBLE. You think you could be prepared to make a presentation on either side of the Hill sometime in April?

Mr. STOLZENBACH. That is right.

Senator BIBLE. I would give myself a little more leeway than 30 days, because I don't think you can tie up these loose ends in 30 days, I think you are a little overoptimistic. But think what I may, I think at that time we have to judge whether or not it is best to proceed then or at a later date, because of the overall congressional situation. And I think that has to be determined in the light of the plan that you have.

Obviously I don't think we can judge it until we have seen what the plan is—attempting to meet these four areas of difficulty.

Pardon my interruption.

### MASS TRANSIT JUSTIFICATIONS

Mr. STOLZENBACH. I think I can summarize our whole proposition, Mr. Chairman, by saying that we are pleading for the appropriation of the full amount in the President's budget of $500,000 on the following grounds: The region needs a rapid transit system. The program the Agency prepared is essential and is, basically, sound.

It has received a favorable reaction from the administration, from the public, and from the congressional committee that has thus far considered it.

There is every reason to believe that the unsolved problems can be effectively worked out in time for action either at this session of the Congress or at a very early date during the next session.

And finally, that the staff of 35 that the Agency would have in fiscal year 1965 under the appropriation we are requesting is essential to complete the job that Congress gave us three and a half years ago.

Senator BIBLE. I only repeat what I said at the beginning. I think it would be a calamity if we allow the Agency to die. My concern now as a member of the Appropriations Committee is to attempt to find why you need the amount of money that you need.

AGENCY OBLIGATIONS AND EXPENDITURES

How much do you have unexpended again on July 1, 1964?

Mr. TOMEY. We anticipate that obligations this year will total approximately $800,000. On the basis of an appropriation of $1 million, we will have roughly $200,000 unobligated at the end of this year.

Senator BIBLE. What you are saying is that on July 1st of this year you will have an unexpended balance of $200,000?

Mr. TOMEY. Yes.

Senator BIBLE. And you are asking for an additional $500,000?

Mr. TOMEY. No funds carryover, sir, we are on an annual appropriation basis.

Senator BIBLE. I understand that. I am just trying to get this picture in mind. I don't think I particularly have it yet. You will have unexpended on July 1 this year, and it would revert to the U.S. Treasury, the sum of $200,000?

AUTHORIZED PERSONNEL

Mr. TOMEY. Yes. And the reason for that, sir, is that we have not staffed to full strength authorized for this year. We have not been at our full strength and, in view of the recommittal action in the Congress, we do not anticipate being at this strength any time this year. As a matter of fact, we are now on a downward trend, employmentwise.

BUDGET REQUEST AND REVERSION

Senator BIBLE. You are asking for $500,000 for the year starting July 1, 1964, to run to July 1, 1965?

Mr. TOMEY. That is correct, sir.

Senator BIBLE. Now, if there is a reversion to the U.S. Treasury of $200,000, then you are in effect asking for $300,000 of new money?

Mr. TOMEY. Yes, sir; that point is well taken. I was merely pointing out that technically it would require an appropriation of $500,000 of new obligational authority.

Senator BIBLE. I understand, we couldn't appropriate $300,000 to meet your needs; we would have to appropriate the $500,000 to meet your needs? But to your credit you are reverting $200,000 to the Treasury.

Mr. TOMEY. That is correct, sir.

PERSONNEL REDUCTIONS

Senator BIBLE. Now, I would like to have you tell me why you need 35 people at a cost of $500,000, and what will they do, Mr. Stolzenbach?

Mr. STOLZENBACH. Specifically, Mr. Chairman, there are four major areas of activity, all related to working out these changes in the program, that were revealed in the consideration in the House. These

are spelled out in detail in the prepared material that you have already inserted into the record and to which I have previously adverted. However, I presume you might like to have me comment on each one of them in more detail.

Senator BIBLE. Let's explore this area first. I mean, between now and July 1 which is March, April, May, and June, you have 4 months where you are operating under your present staff.

How many members do you have now? How many do you have aboard as of today?

Mr. TOMEY. As of February 29 we had 56 on duty, sir.

Senator BIBLE. You have 56?

Mr. TOMEY. Yes.

Senator BIBLE. You intend carrying that 56 for how long?

Mr. STOLZENBACH. The number is going down, because people are finding other jobs in anticipation of an inevitable cut in staff. By the end of March, for example, employment is expected to be down to approximately 51.

### DUTIES OF THE STAFF

Senator BIBLE. What will these 51 people do between now and July 1? Aren't they going to do a great deal of this work that you indicate you need the additional money and positions for? I understand you to say that within the—you did say that in the next 30 days you are going to be prepared to go back to the House committee or come to the Senate side and make a presentation of a new plan.

Mr. STOLZENBACH. That is correct.

### ADDITIONAL PERSONNEL REQUESTED

Senator BIBLE. If you have this all done in 30 days why do you need 35 more people from July 1 on?

Mr. STOLZENBACH. We may not do it this year, as long as it is still necessary to work out a program and a plan that represents a consensus of the officials of the region, the administration, and the congressional committees, you will need to have this kind of minimum balanced technical staff in order to work it out.

For example, every change that you make in a transit plan involves a series of rather complicated technical computations.

Senator BIBLE. I don't question that statement. I do hope you get it worked out this year, and I will lend my best efforts to attempting to help you on the legislative side toward that end. If you do get it worked out, that is wonderful. If you don't get it worked out I am still intrigued as to why you need a staff of 35 people for the next year.

I think you need some staff. And I think it should be kept alive and you should have some of your top personnel. I have great difficulty in understanding what 35 people are going to do. And if you want to, on a case-by-case basis you could supply the staff positions, not the names, the staff positions and what you intend having each of them do from July 1, 1964, to June 1, 1965.

Mr. STOLZENBACH. Mr. Chairman, I am prepared to discuss this in whatever degree of detail you wish. We have here a list of the professional positions in each of the major offices and their principal duties.

Senator BIBLE. All right, 35 is not many, why don't you just quickly tell us exactly what they will do, and why you need them?

PROFESSIONAL STAFF POSITIONS REQUESTED

Mr. STOLZENBACH. Of the 35 budgeted positions there are 22 professional staff positions. The remainder are clerical.

Senator BIBLE. Let's get into the professional people. What will each of those 22 be?

Mr. STOLZENBACH. In the Office of the Administrator and Deputy Administrator there are three professional positions which include the two Presidential appointees. This involves, of course, the overall direction of the agency and its activities, the preparation of proposals for legislation and the review of proposals of other agencies and the Congress. We also provide administrative support to the Federal representative who is negotiating the interstate compact under title III of our act. And we have a responsibility in this Office for the coordination of the advisory committees such as the Advisory Committee on Finance.

In the Office of the Assistant Administrator and General Counsel we have two professionals. The Assistant Administrator is in direct charge of the coordination of the agency work program in the three major substantive offices which I will describe later.

COMPREHENSIVE LABOR PROTECTION PROPOSAL

One of their special problems at the moment is the drafting of a comprehensive labor protection proposal. This involves working with both the Transit Workers Union and the AFL–CIO, the U.S. Department of Labor, the Bureau of the Budget——

Senator BIBLE. I recognize this as one of your real problem areas in working this transit system out. How many people do you have assigned to that?

Mr. STOLZENBACH. Two professionals and one clerical.

Senator BIBLE. I am not worried about the clerical help. You have two professionals. Those professionals are both lawyers, are they?

Mr. STOLZENBACH. They are both lawyers.

Senator BIBLE. What other men do you need?

RAPID TRANSIT SYSTEM PLANS

Mr. STOLZENBACH. This Office is also involved in the development of plans for public and private operation of a rapid transit system, a question which we had not anticipated in our original proposal because we felt that it was one that the Congress did not necessarily have to decide now. However, it was revealed in the House debate that Congress was interested in this aspect. They actually amended the bill on the floor of the House to include a private enterprise provision. And so we feel now, and members of the House District Committee agree, that this is a subject that does demand attention.

OFFICE OF PUBLIC INFORMATION AND COMMUNITY SERVICES

Coming now to the Office of Public Information and Community Services, they have two professionals there. I am sure you understand that by the very nature of the agency we are Federal but also part local, in that we have to be in a position to communicate with the local community. We have literally hundreds of requests

for information from public organizations, news media, and private citizens.

Senator BIBLE. Those two professional positions, what are they, newspapermen?

Mr. STOLZENBACH. The functional title is "information officer." The incumbent of this position is the Director of this Office. He handles the presswork, media contacts, and directs a comprehensive community services program.

Senator BIBLE. I think I recognize that.

Mr. STOLZENBACH. The second professional is a writer position required to help prepare press releases and handle the workload of this Office.

Senator BIBLE. And how about your other professional people that you justify?

Mr. STOLZENBACH. In the Office of Administration we have Mr. Tomey, the Director of Administration, and his assistant. I don't believe that needs any further explanation.

Now, to come to what I would call the main substantive offices, we have an Office of Planning, an Office of Finance, and an Office of Engineering.

OFFICE OF PLANNING

In the Office of Planning there are five professionals.

Senator BIBLE. They are engineers, I take it?

Mr. STOLZENBACH. They are engineers, urban planners, and public transportation specialists—that is the range of occupations that we have there.

Their duties include such things as the development of the general configuration of alternative rapid transit systems. For example, if you change one leg or even one station in one of the alternate transit plans, it involves a series of very complicated interactions with the rest of the system. The preparation of traffic estimates is of fundamental importance in estimating the financial capabilities of the system.

TRAFFIC ESTIMATES

Senator BIBLE. On that point haven't we been making traffic estimates for about the last 10 years?

Mr. STOLZENBACH. A variety of specific traffic estimates will be required such as: How many people will board the train at each station on the line? If you have one line in plan A and don't have it in plan B, this will affect the amount of traffic on some other line, because the people could very well use that other line. It is not just a simple matter of going back and picking off some numbers.

Senator BIBLE. I am not unduly critical, but it seems to me that we have spent many hundreds of thousands of dollars in determining these traffic estimates in the past. And do you have to do it again, or do you just update it?

Mr. STOLZENBACH. You just take the basic material that we have gathered in all the previous traffic studies and then apply it to the new system.

Mr. SEEGER. I think I might be able to help you out on this.

REASON FOR NEW ESTIMATES

We started by recommending a $792.8 million transit system. The House District Committee raised the question of the economic possibility of a smaller version of that system.

Senator BIBLE. Around $400 million?

Mr. SEEGER. To around $400 million. In order to find that out you can't just rely on your original traffic estimates, you have to make new estimates for each station on the system. In other words, you have to make an entirely new set of station-by-station estimates.

Senator BIBLE. I think I can understand that.

Mr. SEEGER. And then new capital cost estimates must be developed.

Senator BIBLE. Of course, you are going to have to do that between now and April if you have another plan to go back to Congress with.

Mr. SEEGER. The problem is that we are looking for a system that we can get complete agreement on; that is, a system that the people in the region will want to pay for and which will be acceptable to the Congress. And we find that each time a meeting with some local jurisdiction——

Senator BIBLE. And that the Government of the United States will help finance?

Mr. SEEGER. That it will help finance.

Senator BIBLE. They will take a pretty good share of this under your plan?

REVISING FINANCING SCHEDULES TO REDUCE FEDERAL SUPPORT

Mr. SEEGER. This is one of the major things we are doing, revising the financing schedules and trying to cut down the amount of Federal support for the system.

Senator BIBLE. I realize that this is one of your problem areas, and I realize that you are going to have a large amount of Federal financing and a large amount of Federal underwriting if you are going to get the job done.

Justify the other positions.

OFFICE OF FINANCE

Mr. STOLZENBACH. In the Office of Finance we have also three professionals, and they are engaged in preparation of financial statements, profit and loss statements.

Senator BIBLE. I think that might be one of your most important problems.

Mr. STOLZENBACH. The development of alternative financial formulas.

Senator BIBLE. Three people do that. How about your other professionals?

OFFICE OF ENGINEERING

Mr. STOLZENBACH. The remaining five are in the Office of Engineering. These are the people who determine the engineering feasibility of each feature of the system both as to whether you can build it or not, what the capital costs are, how long it will take to build it, and the various engineering elements that enter into the problem.

Senator BIBLE. Very fine. If you want to supply any additional justification for the record, it will be kept open 3 days to permit you to do that.

(The information referred to follows:)

STAFF REQUIREMENTS AND OUTLINE OF WORK PROGRAMS, FISCAL YEAR 1965

| Office | Staff | Grade | Duties |
|---|---|---|---|
| EXECUTIVE DIRECTION AND ADMINISTRATION | | | |
| Office of Administrator/ Deputy Administrator. | 3 professionals | | 1. Direction of all Agency activities. |
| | 1 Administrator | Statutory | |
| | 1 Deputy Administrator | Statutory | 2. Proposal of new legislation, and review of legislative proposals of other agencies and the Congress. |
| | 1 special assistant | GS–16 | |
| | 2 clerical: | | 3. Administrative support of the Federal representative negotiating an interstate regional compact. |
| | 1 confidential assistant | GS–11 | |
| | 1 confidential assistant | GS–10 | 4. Coordination of advisory committees. |
| Office of Assistant Administrator and General Counsel. | 2 professionals | | 1. Coordination of the Agency work programs. |
| | 1 Assistant Administrator and General Counsel. | GS–18 | 2. Drafting of a comprehensive labor protection proposal. |
| | 1 Assistant General Counsel. | GS–15 | 3. Development of plans for public and private operation of the rapid transit system. |
| | 1 clerical: | | |
| | 1 secretary | GS–9 | 4. Furnishing legal review of, and legal advice on, all Agency activities. |
| Office of Public Information and Community Services. | 2 professional | | 1. Answering requests for information from public organizations, news media, and private citizens. |
| | 1 information officer | GS–15 | |
| | 1 writer | GS–9 | |
| | 1 clerical: | | 2. Furnishing information to community organizations about rapid transit systems and benefits. |
| | 1 secretary | GS–6 | |
| Office of Administration | 2 professionals | | 1. Performance of all internal management services—personnel, budget, fiscal, organization and methods, procurement, and office services. |
| | 1 administrative officer | GS–15 | |
| | 1 administrative assistant. | GS–12 | |
| | 2 clerical: | | |
| | 1 secretary | GS–5 | 2. Liaison with GSA for performance of administrative housekeeping functions. |
| | 1 administrative clerk | GS–5 | |
| TRAFFIC AND FINANCIAL PLANNING | | | |
| Office of Planning | 5 professionals | | 1. Development of the general configuration of alternative rapid transit systems. |
| | 1 assistant director | GS–16 | |
| | 1 urban planner | GS–13 | |
| | 1 public transportation planning specialist. | GS–13 | 2. Preparation of traffic estimates for each alternative system. |
| | 1 highway engineer | GS–7 | |
| | 1 highway engineer | GS–5 | 3. Cooperation with local planning bodies who request incorporation of rapid transit in their plans. |
| | 3 Clerical: | | |
| | 1 secretary | GS–7 | |
| | 1 statistical assistant | GS–7 | |
| | 1 engineering aid | GS–4 | 4. Preparation of regional traffic forecasts and transportation plans, in cooperation with regional highway departments and local governments; collecting and tabulating data; programing forecasts. |
| Office of Finance | 3 professionals | | 1. Preparation of financial tables, operating costs, and profit and loss statements, for alternative rapid transit systems. |
| | 1 financial economist | GS–15 | |
| | 1 transportation financial specialist. | GS–11 | |
| | 1 economic aid | GS–6 | 2. Development of alternative financing formulas. financing formulas. |
| | 2 clerical: | | |
| | 1 secretary | GS–6 | |
| | 1 statistical clerk | GS–5 | 3. Development of a zone fare collection system. |
| | | | 4. Analysis of the financial feasibility of parking garages at certain stations. |

STAFF REQUIREMENTS AND OUTLINE OF WORK PROGRAMS, FISCAL YEAR 1965—Continued

| Office | Staff | Grade | Duties |
|---|---|---|---|
| ENGINEERING PLANS | | | |
| Office of Engineering | 5 professionals | | 1. Determination of engineering feasibility of alternative rapid transit systems.<br>2. Preparation of capital cost estimates of alternative rapid transit systems.<br>3. Preparation of operating schedules for use in estimating operating costs.<br>4. Research in control equipment, trackwork, and vehicle design.<br>5. Review of plans submitted by regional bodies for preservation or rights-of-way and station sites. |
| | 1 Chief, Division of Ways and Structures. | GS-16 | |
| | 1 civil engineer | GS-14 | |
| | 1 electrical engineer | GS-11 | |
| | 2 civil engineers | GS-9 | |
| | 2 clerical: | | |
| | 1 secretary | GS-7 | |
| | 1 draftsman | GS-7 | |

LAND ACQUISITION APPROPRIATION

Senator BIBLE. Let me ask you just one further question. How much has been appropriated to the National Capital Transportation Agency for land acquisition?

Mr. STOLZENBACH. The total is $1,400,000, consisting of $1 million appropriated in fiscal year 1962 and $400,000 in fiscal year 1963.

Senator BIBLE. How much of the amount has been expended and what land did you acquire?

Mr. STOLZENBACH. We have expended none of this appropriation for the acquisition of land. Approximately $95,000 has been obligated for incidental construction involved in the strengthening of an abutment of a structure on the proposed Route 66, near the Capital Beltway in Fairfax County, Va.

Senator BIBLE. When do you propose to spend the remaining amount?

Mr. STOLZENBACH. At the moment we do not propose to expend it.

Senator BIBLE. I think it would be wise to have a final congressional directive on it.

SOLVING METROPOLITAN AREA TRAFFIC PROBLEMS

Two other questions. Do you see any way in which Washington traffic problems can be solved without a rail rapid transit system?

Mr. STOLZENBACH. No, sir; I do not.

Senator BIBLE. I assumed that would be your answer. I agree with you. I think we must have a rail rapid transit system balanced out with the highways.

Have the local jurisdictions in the region indicated a willingness to help finance the rapid transit system?

Mr. STOLZENBACH. There is every indication that the people of this region want a system. Most of the localities have indicated officially that they want it, and some of them have actually gone so far as to start action on how they would pay for it. During the past 2 weeks there have been under consideration in the Virginia Assembly two bills which would provide for the creation of a transit district in northern Virginia.

TRANSIT DISTRICT IN NORTHERN VIRGINIA

These bills are just about to the stage of final passage. And I think that is very good indication that the State of Virginia, which is the first State legislature of either Maryland or Virginia, that has had an opportunity to consider this question since our original proposal was sent to Congress. They are taking this action.

Senator BIBLE. Is Maryland considering comparable legislation?

TRANSIT LEGISLATION IN MARYLAND

Mr. STOLZENBACH. The Maryland Legislature does not meet in legislative session until next year. The first opportunity they will have to do this would be in the early part of 1965.

Senator BIBLE. With respect to the action in the Virginia Assembly, are you speaking about Senator Fenwick's bill?

Mr. STOLZENBACH. That is correct.

Senator BIBLE. I think that is a step forward in the right direction, and I think it will be successful.

PUBLIC SUPPORT FOR RAPID TRANSIT SYSTEM

How much public support has there been metropolitanwise for the proposed rapid transit system?

Mr. STOLZENBACH. The program has been endorsed by over 500 citizens' organizations in the region, by governing bodies throughout the area, and all interested Federal agencies. The chairman of the House subcommittee which held hearings in the House, has told us that the rapid transit program generated more public support than any program he had ever seen for the District of Columbia.

Senator BIBLE. I just hope it generates the same support when it gets to the floor on the next round on either side of the Hill.

Do we need further observations?

RAPID TRANSIT SYSTEM LEGISLATION IN VIRGINIA

Mr. QUENSTEDT. I would like to make one statement, and that is with respect to the legislation in the Virginia Assembly.

So that the record will be clear, identical bills have been passed in each house. There remains only the formality of final parliamentary procedures. There is no reason to believe that it will not be enacted into law. In other words, we wouldn't want you to feel, in the parliamentary sense, that it was at the point of passage but still had to be acted on by the assembly—both of them have been acted on.

Senator BIBLE. What was the vote in each house?

Mr. QUENSTEDT. I don't believe that there was any real challenge to it although I have no knowledge of the actual vote. When I was there on Monday of last week Senator Fenwick thought that all problems had been resolved and there would be no trouble.

Senator BIBLE. Since substantially identical bills have passed each of the two houses in the Commonwealth of Virginia, certainly you have every reason to feel that it is going to come along?

Mr. QUENSTEDT. That is right, they were identical.

(The subcommittee was subsequently advised by the agency that the legislation referred to (H–814 and H–815) was approved by the General Assembly of Virginia and is expected to be signed by the Governor on March 27, 1964, to become effective on July 1, 1964.)

LETTER URGING RAPID TRANSIT PROGRAM SPEED

Mr. STOLZENBACH. Mr. Chairman, may I submit for the record a copy of a letter which I received from Congressman Whitener, chairman of Subcommittee No. 6 of the House District Committee? This letter contains the resolution of that subcommittee urging that the National Capital Transportation Agency "proceed with all possible speed so that a rapid transit program can be presented to the Congress at an early date." This is the subcommittee which conducted hearings on our authorizing legislation and this resolution reflects the sense of urgency which the members of the House District Committee attach to our program.

(The letter referred to follows:)

U.S. HOUSE OF REPRESENTATIVES,
COMMITTEE ON THE DISTRICT OF COLUMBIA,
*Washington, D.C., February 18, 1964.*

Hon. C. DARWIN STOLZENBACH,
*Administrator, National Capital Transportation Agency,*
*Washington, D.C.*

DEAR MR. STOLZENBACH: For your information, Subcommittee No. 6, of which I am chairman, today adopted the following resolution which I am transmitting to you for appropriate action:

Whereas the House of Representatives on December 9, 1963, voted to recommit H.R. 8929, a bill to authorize the prosecution of a transit development program for the National Capital region; and

Whereas the President of the United States in his District of Columbia budget message has called for "a redoubling of efforts to find an acceptable program which will permit a transit development plan to proceed," and has instructed the National Capital Transportation Agency to work with other Federal agencies and the local jurisdictions to that end: Now, therefore, be it

*Resolved,* That Subcommittee No. 6 of the Committee on the District of Columbia urges the Agency to proceed with all possible speed so that a rapid transit program can be presented to the Congress at an early date.

With kindest personal regards,

Sincerely yours,

BASIL L. WHITENER,
*Member of Congress,*
*Chairman, Subcommittee No. 6.*

SPEED URGED IN RAPID TRANSIT PROGRAM

Senator BIBLE. Thank you very much, gentlemen.

Mr. Chairman, did you have questions on this?

Senator HAYDEN. No questions.

Senator BIBLE. Senator Bartlett, questions?

Senator BARTLETT. No questions.

Senator BIBLE. I will turn this back over to you, Mr. Chairman.

Chairman HAYDEN. Before proceeding to the next witnesses, I will place in the record a statement by the Joint Committee on Transportation for Metropolitan Washington supporting this budget request.

(The statement referred to follows:)

STATEMENT OF MILES L. COLEAN, CHAIRMAN, JOINT COMMITTEE ON TRANSPORTATION FOR METROPOLITAN WASHINGTON

My name is Miles L. Colean. I serve as chairman of the Joint Committee on Transportation for Metropolitan Washington. We are grateful for this opportunity to comment on the proposed budget of the National Capital Transportation Agency.

The Nation's Capital's civic and business leaders formed the Joint Committee on Transportation to work for a balanced system of transportation which includes adequate freeways, ample bus service, and a rapid rail transit system. Those of us who are concerned with finding a solution to Washington's pressing traffic problems were very disappointed when the legislation to authorize a rapid rail system in Washington failed to pass the House of Representatives and was sent back to the District Committee for further study.

In order to fulfill this mandate from Congress and instructions from the President, it is necessary that the National Capital Transportation Agency have adequate funds to perform its duties effectively.

There must be a continuation of an instrumentality to maintain and correlate the wealth of material related to the proposed rapid rail transit system which has been gathered already. A nucleus of competent people must also be maintained so that the organization can be expanded rapidly when the need arises.

When the interstate compact becomes effective it should inherit an up-to-date body of knowledge and data to assist it in carrying out its responsibilities.

We respectfully request that the Senate Appropriations Committee approve sufficient funds for the operation of the National Capital Transportation Agency so that we will not lose the benefits of the valuable work already completed and the services of the experts who have already been assembled.

Respectfully submitted.

MILES L. COLEAN, *Chairman.*

Chairman HAYDEN (presiding). We will now hear from the Division of Indian Health.

## INDIAN HEALTH ACTIVITIES AND CONSTRUCTION OF INDIAN HEALTH FACILITIES

**STATEMENT OF DR. CARRUTH J. WAGNER, CHIEF, DIVISION OF INDIAN HEALTH; ACCOMPANIED BY DR. ERWIN S. RABEAU, DEPUTY CHIEF; HENRY V. CHADWICK, CHIEF, OFFICE OF ADMINISTRATION; ROBERT A. COHEN, CHIEF, CONSTRUCTION AND MAINTENANCE BRANCH; ALBERT H. STEVENSON, CHIEF, OFFICE OF ENVIRONMENTAL HEALTH; SOL ORDEN, CHIEF, FINANCIAL MANAGEMENT BRANCH; DR. JAMES V. LOWRY, CHIEF, BUREAU OF MEDICAL SERVICES; DR. LEO J. GEHRIG, DEPUTY CHIEF, BUREAU OF MEDICAL SERVICES; G. RICHARD CLAGUE, CHIEF, BUDGET BRANCH; AND LOYAL C. FISHER, DEPUTY DEPARTMENT BUDGET OFFICER, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE.**

### 1965 BUDGET REQUEST

Chairman HAYDEN. The budget estimate for Indian health activities for fiscal year 1965 is $61,576,000, an increase of $2,615,250 over the amount appropriated for fiscal year 1964.

There is, however, pending a supplemental estimate in the amount of $566,000 to meet last year's pay act increases.

The justification in support of this estimate will be placed in the record.

(The statement referred to follows:)

### HIGHLIGHT STATEMENT

Health services for Indian and Alaska native beneficiaries are provided directly by the Public Health Service through a system of 50 hospitals, their outpatient clinics, field health centers, outpatient field stations, and at Bureau of Indian Affairs schools. Where, (1) Public Health Service facilities or services are lim-

ited or nonexistent, or (2) it is to the advantage of the Indian beneficiary, health services are provided through contractual arrangements with non-Federal hospitals, private physicians and dentists, and State and local health and welfare agencies.

Currently some 380,000 Indians and Alaska natives come within the scope of the Indian health program. Approximately 43,000 are in Alaska and the remainder in the 23 Federal Indian reservation States. These populations are young, about 57 percent are under 20 years of age, compared with 38 percent under 20 in the general population.

Birth rates among Indians and Alaska natives are twice the rate in the population as a whole. Significant service population growth is projected in the coming years, mainly in the Southwest—Arizona and New Mexico—and lesser increases in Utah, Wyoming, and Alaska. Other States are expected to level off, as migration patterns in and out of service areas continue.

The latest available data (1962) indicate significantly higher mortality rates among Indians and Alaska natives than among the general population. Indian mortality rates as compared to those for all races, for selected causes follow:

Infant deaths per 1,000 live births:

Indian, excluding Alaska native, about 2 times greater.

Alaska native, about 60 percent higher than Indian; nearly 3 times greater than all races.

Infectious diseases (death rates per 100,000 population):

Tuberculosis: Indian and Alaska native, about 6 times greater.

Gastroenteric diseases: Indian, about 7 times greater.

Influenza and pneumonia:

Indian, excluding Alaska native, over 2 times greater.

Alaska native, over 3 times greater.

Leading causes of death are heart disease and accidents. Death rates are almost the same for each. Accidental death rates are nearly three times higher than among all races.

Respiratory diseases, otitis media, measles, and other communicable diseases especially among children are reported with greater frequency than in the general population. Communicable diseases particularly gastroenteric conditions and dysentery, especially among infants, young children and young adults, cause excessive burdens of illness. Tuberculosis incidence declined slightly in 1962, but the rate still exceeds that of the general population by 7 times and in Alaska the rate is over 15 times higher.

These health deficiencies and the need for resources and methods for nurturing acceptable health practices to overcome the existing problems are recognized by both the Public Health Service and its Indian and Alaska native beneficiaries. Their growing recognition of the benefits of modern medicine and up-to-date health practices is amply demonstrated by their increasing use and acceptance of available health services and the more active participation of tribal councils and individual members in health affairs.

Hospital admissions continue at a high rate. Leading reasons for hospitalization, outside of the Alaska native hospitals are: (1) deliveries; (2) respiratory conditions; (3) accidents; (4) gastroenteric diseases; and (5) other infective and parasitic diseases. In Alaska, respiratory illnesses rank first and deliveries second.

The large proportion of the health services are for children of all ages, for mothers, and for treatment of patients for acute illness and injuries.

Pediatric workload is high, comprising more than one-third of the general hospital discharges. Readmissions, especially among the very young children up to 5 years of age, are high (attributed to a great extent to the home environment, lack of sanitary facilities, exposure to reinfections, malnutrition, neglect, accidental injuries).

Outpatient visits and workloads at all hospital clinics, field health clinics, and stations are increasing, especially the immunization workloads.

As preventive programs are further strengthened and screening activities through physical examinations and special clinical services are advanced, the hospital workloads and program requirements are expected to gradually undergo changes. Patients with disabilities (crippling conditions among children, congenital anomalies), residuals of acute conditions (eye and ear) and degenerative illnesses such as the cardiovascular diseases and those requiring long-term care, diabetes, gall bladder disease, cancer, and others, and mental illness will begin to displace the acute conditions requiring treatment.

An appropriation of $61,576,000 is requested for 1965. This compares with an estimated availability of $59,540,750 for 1964, or an increase of $2,035,250.

### Hospital Health Services

The 1965 estimate provides for a program increase of $204,500. This increase will permit an increase in employment and other related costs, commensurate with increased workload.

The budget for 1965 provides for: (1) a net increase in the average daily patient census of 15 patients per day (increase of 33 general medical and surgical patients and decrease of 18 tuberculosis patients); (2) an increase in hospital admissions of 1,300; (3) workload resulting from an increase in births of 335; and (4) an increase in outpatient visits of 13,200.

### Contract Medical Care

An increase of $425,000 will provide for contract hospitalization of an additional average daily load of three patients, representing an increase of three general patients and five neuropsychiatric patients, offset by a decrease of five tuberculosis patients, as well as higher per diem contract hospital costs. An increase of $88,000 is also requested to fund on an annual basis the field supervision positions authorized in the 1964 budget.

### Field Health Services

The 1965 estimate provides for a program increase of $298,500. This increase will permit an increase in employment and other related costs for the extension of preventive health services to Indian communities.

### Administration

The 1965 estimate provides for a minor program increase of $3,000.

*Indian health activities*

| | |
|---|---|
| Appropriation, 1963 | $56, 836, 250 |
| Transferred to "Operating expenses, Public Buildings Service" (75 Stat. 353) | −13, 100 |
| Applied to contract authorization | −432, 108 |
| Total amount available, 1963 | 56, 391, 042 |
| Appropriation, 1964 | 58, 960, 750 |
| Comparative transfers from other accounts | 14, 000 |
| Proposed transfer from "National Heart Institute, PHS" to cover Public Law 88–132 pay act increases | 566, 000 |
| Total amount available, 1964 | 59, 540, 750 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | |
|---|---|
| Hospital health services: To provide for mandatory increases, and program increases for additional staff; increased workload and change of patient load composition | +922, 250 |
| Contract medical care: To provide for additional workload; price increases and additional professional field supervision | +514, 000 |
| Field health services: To provide for mandatory increases, and program increases in the preventive health activities of sanitation, dental, public health nursing, and field medical services | +550, 000 |
| Administration: To provide for mandatory increases | +49, 000 |
| Net change, 1965 | +2, 035, 250 |
| Budget estimate, 1965 | 61, 576, 000 |

*Analysis by activities*

| Activity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increases |
|---|---|---|---|---|
| Hospital health services | $34,283,628 | $35,719,750 | $36,642,000 | $922,250 |
| Contract patient care | 10,244,587 | 11,324,000 | 11,838,000 | 514,000 |
| Field health services | 9,971,147 | 10,750,000 | 11,300,000 | 550,000 |
| Administration | 1,534,039 | 1,747,000 | 1,796,000 | 49,000 |
| Unobligated balance lapsing | 357,641 | | | |
| Total | [1] 56,391,042 | [1] 59,540,750 | [1] 61,576,000 | 2,035,250 |

[1] Excludes reimbursements as follows: 1963, $667,358; 1964, $660,000; 1965, $660,000.

*Hospital health services*

| Activity | Amount available 1963 | Amount available 1964 | Estimate 1965 | Increase (+) decrease (−) |
|---|---|---|---|---|
| Hospital health services | $34,283,628 | $35,719,750 | $36,642,000 | +$922,250 |

The estimate of $36,642,000, an increase of $922,250, consists of:

| | |
|---|---|
| (1) Statutory salary promotions | $271,500 |
| (2) Annualization of Civil Service Pay Act increase, Public Law 87–793 | 297,000 |
| (3) Annualization of Uniformed Services Pay Act increase, Public Law 88–132 | 110,000 |
| (4) Wage board increases from Sept. 15, 1962, through Sept. 15, 1963 | 102,250 |
| (5) Payments to employees compensation fund | 19,000 |
| Total mandatory increases | 799,750 |
| (6) Program increase | 204,500 |
| Total increase | 1,004,250 |
| Less: Decrease for 1 day less pay in 1965 | −82,000 |
| Net increase | 922,250 |

NEED FOR INCREASE

Workload in Public Health Service Indian hospitals continues to increase. In reviewing this estimate against the 1964 budget which was submitted last year, we find that in 1963 the average daily patient load exceeded our estimate by 57, and that out-patient visits were 34,000 over the estimate. Our present 1964 estimate calls for an increase of 25 in average daily patient load, and 37,800 in outpatient visits over the original 1964 budget submitted last year. Further workload increases are anticipated for 1965 as follows:

| | |
|---|---|
| Increase in general patients | +33 |
| Decrease in tuberculosis patients | −18 |
| Net increase in ADPL | +15 |
| Increase in admissions | +1,300 |
| Increase in hospital births | +335 |
| Increase in outpatient visits | +13,200 |

The program increase of $204,500, which is requested for 1965, will provide for the increased costs required to maintain the additional workload for the more expensive general medical and surgical patient, as well as funds to support an additional 53 positions (44 man-years). This increase in employment will provide for an employee/patient ratio in 1965 at approximately the same level as the 1964 program.

The American Hospital Association's Hospitals Guide Issue (dated August 1, 1963) reports 1962 ratios for patient stay and full-time employees per 100 patients in U.S. short-term general hospitals as follows:

| | Patient stay | Employees per 100 patients |
|---|---|---|
| All short term | 8.3 | 230 |
| All Federal | 19.9 | 181 |
| Non-Federal | 7.6 | 237 |
| PHS Indian general hospitals | 10.0 | [1] 163 |

[1] Includes outpatient personnel.

The above ratio reported in 1962 for Indian service hospitals included personnel for outpatient operations. It is pointed out that in 1963 personnel have been prorated between inpatient and outpatient and the resulting ratio for general hospitals in the Indian service was 143 employees per 100 patients (United States excluding Alaska). The turnover of patients (patient stay) and types of cases (obstetric, pediatric, etc.) and illnesses compare with the small community voluntary hospital for which a ratio of 230 was reported (see table on p. 1251).

In comparing staffing ratios of Public Health Service Indian hospitals with other Federal and community hospitals, recognition must be given to the following factors: (1) the majority of the Public Health Service Indian hospitals are small in comparison; (2) all Public Health Service Indian hospitals have acutely ill patients, high volume of admissions, and high patient turnover (short patient stay); (3) there is a very high percentage of female and pediatric cases in Public Health Service Indian hospitals; (4) the operating requirements of Public Health Service Indian hospitals are unique due to the fact that the hospitals are isolated and many are located in areas of severe climatic conditions which require more than the normal number of nondirect patient care supporting personnel as well as supply, utility, and maintenance personnel; (5) the large and very active outpatient operation of Indian hospitals; and (6) a readiness-to-serve requirement at many small Public Health Service Indian hospital installations (to maintain hospital services requires a minimum staff regardless of size of the workload).

### PLAN OF WORK

The hospital health services request of $36,642,000 for 1965 will provide (1) for the continued operation of 50 Public Health Service Indian hospitals and attached outpatient clinics, (2) for a nurse training program associated with Public Health Service Indian hospitals, and (3) for the maintenance of PHS Indian health facilities, consisting of hospitals, health centers, stations, school clinics and staff quarters. During fiscal year 1965 it is anticipated that a new replacement hospital will be opened at Fort Yates, N. Dak., and the modernization of the Crow, Mont., hospital will be completed.

The contemplated workload for 1965 and a comparison of the average daily inpatient census, admissions, births, and outpatient visits for the fiscal years 1963, 1964, and 1965 is reflected in the table that follows.

*Workload data*

| | 1963 actual | 1964 estimate | 1965 estimate | Change, increase (+) or decrease (−) |
|---|---|---|---|---|
| Average daily patient census by type of patient (excluding newborn): | | | | |
| Total average daily census | 2,377 | 2,390 | 2,405 | +15 |
| General patients | 1,889 | 1,902 | 1,935 | +33 |
| Tuberculosis patients | 488 | 488 | 470 | −18 |
| United States excluding Alaska | 1,781 | 1,780 | 1,785 | +5 |
| General patients | 1,501 | 1,502 | 1,525 | +23 |
| Tuberculosis patients | 280 | 278 | 260 | −18 |
| Alaska | 596 | 610 | 620 | +10 |
| General patients | 388 | 400 | 410 | +10 |
| Tuberculosis patients | 208 | 210 | 210 | ---------- |
| Total admissions (excluding births) | 64,749 | 66,000 | 67,300 | +1,300 |
| United States excluding Alaska | 56,241 | 57,400 | 58,650 | +1,250 |
| Alaska | 8,508 | 8,600 | 8,650 | +50 |
| Total births, all Public Health Service Indian hospitals | 9,192 | 9,500 | 9,835 | +335 |
| Outpatient visits for medical therapeutic and preventive services at hospital facilities: | | | | |
| Total visits | 721,678 | 731,800 | 745,000 | +13,200 |
| United States excluding Alaska | 656,165 | 661,800 | 674,000 | +12,200 |
| Alaska | 65,513 | 70,000 | 71,000 | +1,000 |

*Employee/patient ratios and average daily patient loads, by type of hospital*

| Type hospital | Number | Average daily patient load | Employees per 100 patients | | |
|---|---|---|---|---|---|
| | | | 1963 | 1964 | 1965 |
| United States, excluding Alaska: | | | | | |
| General | 3 | 115–150 | 155 | 151 | 156 |
| Do | 5 | 50–85 | 147 | 148 | 146 |
| Do | 17 | 20–50 | 126 | 130 | 130 |
| Do | 15 | 10–20 | 164 | 169 | 167 |
| Total | 40 | ---------- | 143 | 145 | 145 |
| Tuberculosis | 3 | 45–95 | 89 | 89 | 90 |
| Alaska: | | | | | |
| General | 2 | 140–348 | 139 | 137 | 137 |
| Do | 2 | 32–42 | 193 | 181 | 177 |
| Do | 3 | 8–26 | 210 | 191 | 189 |
| Grand total | 50 | ---------- | 140 | 140 | 141 |

ITEMIZATION OF ESTIMATE

*Hospital health services*

| Obligations by objects | Actual, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| 11 Personnel compensation | $23,377,355 | $24,731,750 | $25,569,000 | +$837,250 |
| 12 Personnel benefits | 1,942,877 | 2,008,200 | 2,064,200 | +56,000 |
| 21 Travel and transportation of persons | 906,675 | 931,600 | 931,600 | |
| 22 Transportation of things | 522,620 | 536,100 | 536,100 | |
| 23 Rent, communications, and utilities | 1,356,907 | 1,372,100 | 1,374,100 | +2,000 |
| 24 Printing and reproduction | 47,793 | 48,000 | 48,000 | |
| 25 Other services | 1,682,605 | 1,699,200 | 1,728,200 | +29,000 |
| 26 Supplies and materials | 4,436,958 | 4,578,300 | 4,607,300 | +29,000 |
| 31 Equipment | 635,858 | 577,500 | 582,500 | +5,000 |
| 42 Insurance, claims, and indemnities | 12,633 | | | |
| Subtotal | 34,922,281 | 36,482,750 | 37,441,000 | 958,250 |
| Deduct quarters and subsistence charges | 638,653 | 763,000 | 799,000 | −36,000 |
| Net obligations | [1] 34,283,628 | [1] 35,719,750 | [1] 36,642,000 | +922,250 |

[1] Excludes reimbursements as follows: 1963, $667,358; 1964, $660,000; 1965, $660,000.

*2. Contract medical care*

| Activity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Contract medical care | $10,244,587 | $11,324,000 | $11,838,000 | +$514,000 |

The estimate of $11,838,000 is an increase of $514,000 consisting of:

1. An increase of $379,000 for rising costs of program operation.
2. An increase of $46,000 for the hospitalization, medical care, and transportation of an average of three additional patients per day during 1965 fiscal year.
3. An increase of $89,000 to annualize the cost of the new positions authorized under the 1964 appropriation, which includes $1,000 for annualization of Civil Service Pay Act increases, Public Law 86–793.

NEED FOR INCREASE

1. An analysis of the rates negotiated in contracts with the various hospitals clinics, physicians, and dentists with which the Division of Indian Health has continuing formal agreements reveals a steady upward trend of approximately 5 percent annually. Available published surveys of health care costs corroborate this trend and even indicate a higher national rate of increase. In order to maintain the current level of the amount of services provided under this program it is necessary to plan for this added cost and request funds sufficient to cover the probable increase. The amount of $370,000 represents about 73 percent of the total increase requested for this activity.

2. An increase of $46,000 is requested to provide for the hospitalization of an average of three additional patients per day. This increase consists of (1) $48,000 to cover hospital per diem costs for three additional general medical and surgical patients and five additional neuropsychiatric patients; (2) $5,000 for patient and escort travel; and (3) $26,000 for physicians' services, for a total increase of $79,000. This amount is offset by a $33,000 reduction which results from a decrease in the tuberculosis patient load of five patients per day.

3. The diversified contract medical program requires adequate professional supervision at the field level to assure the quality of medical care being furnished. An increase of $89,000, which includes $1,000 for annualization of Civil Service Pay Act increases, is requested to annualize the 18 additional positions authorized in 1964. The 1964 estimate provided funds for a total of 20 positions and 12 man-years. These funds will be used in providing specialized staff to professionally supervise, analyze, and qualitatively reexamine the availability of medical services, their proper utilization, and the quality of the care received.

PLAN OF WORK

The request of $11,838,000 is for the purchase of medical care through contractual arrangements and is an essential element of the Public Health Service Indian health program. Formal agreements are entered into with community hospitals, private physicians and clinics, dentists, and providers of ancillary health services to assure that quality care is obtained. Through this mechanism, medical care services are practically and effectively provided for widely scattered and small groups of Indian beneficiaries who urgently need such services. In addition, the use of contract services makes possible special diagnostic and therapeutic services which cannot be provided in the many small and intermediate sized Public Health Service Indian hospitals at economical costs. Emergency hospital and medical care services are frequently required at locations not readily accessible to health facilities directly operated by the PHS Indian health program. This division does not operate any facilities equipped to provide psychiatric care to Indian beneficiaries and therefore this type of service must be obtained through the contract mechanism.

The following table indicates the distribution of funds under the various items requested for the 1965 program. It also shows how 1963 funds were obligated and the plan of funding for 1964 operations. The actual experience of average daily patient loads are reported for 1963 together with expected levels for 1964 and 1965.

*Contract medical care*

| | 1963 actual | | | 1964 estimate | | | 1965 estimate | | |
|---|---|---|---|---|---|---|---|---|---|
| | Average daily census | Rate | Amount | Average daily census | Rate | Amount | Average daily census | Rate | Amount |
| Hospitalization: | | | | | | | | | |
| General | 491 | $29.73 | $5,328,061 | 511 | $31.28 | $5,850,000 | 514 | $32.91 | $6,174,000 |
| Tuberculosis | 184 | 16.18 | 1,075,903 | 186 | 17.02 | 1,158,000 | 181 | 17.91 | 1,183,000 |
| Neuropsychiatric | 223 | 5.89 | 479,866 | 220 | 6.23 | 500,000 | 225 | 6.51 | 535,000 |
| Total | 898 | | 6,883,830 | 917 | | 7,508,000 | 920 | | 7,892,000 |
| Patient and escort travel | | | 230,812 | | | 242,000 | | | 247,000 |
| Professional field supervision | | | 18,689 | | | 124,000 | | | 213,000 |
| Physicians' services (inpatient fees, office visits, consultation services) | | | 2,200,513 | | | 2,354,000 | | | 2,380,000 |
| Dental services (emergency services, dental, laboratory prosthesis) | | | 380,002 | | | 430,000 | | | 440,000 |
| Other costs (laboratory and X-ray services, pharmaceuticals, proprietary dugs for inpatients and outpatients, prosthesis, and burials) | | | 530,741 | | | 666,000 | | | 666,000 |
| Total | | | 10,244,587 | | | 11,324,000 | | | 11,838,000 |

*Field health services*

| Subactivity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| (a) Sanitation | $1,508,635 | $1,632,900 | $1,729,000 | +$96,100 |
| (b) Dental | 1,670,417 | 1,789,000 | 1,888,000 | +99,000 |
| (c) Public health nursing | 1,344,040 | 1,709,200 | 1,783,000 | +73,800 |
| (d) Health education | 482,182 | 528,500 | 545,000 | +16,500 |
| (e) Field medical services | 4,765,873 | 5,090,400 | 5,355,000 | +264,600 |
| Total | 9,971,147 | 10,750,000 | 11,300,000 | +550,000 |

SANITATION

The estimate of $1,729,000 is an increase of $96,100 consisting of:

| | |
|---|---|
| Statutory salary promotions | $13,000 |
| Annualization of Civil Service Pay Act increase, Public Law 86–793 | 10,000 |
| Annualization of Uniformed Services Pay Act increase, Public Law 88–132 | 18,000 |
| Program increase | 57,300 |
| Total increase | 98,300 |
| Less decrease for 1 day less pay in 1965 | −2,200 |
| Net increase | 96,100 |

NEED FOR INCREASE

Lack of basic sanitary facilities and gross insanitary practices in the home and community continue to exist despite increasing attention being given by Indian tribes and their members. Unavailability of proximate water supplies for domestic use, improper or often nonexistent facilities for satisfactory storage of food and disposal of wastes, overcrowded and poorly constructed housing, and disease vectors (insects and rodents) resulting from environmental conditions favorable to their propagation, continue to be major problems. The above factors are in large measure responsible for the high incidence of preventable diseases such as gastroenteritis and infectious hepatitis and needless premature deaths, particularly among infants, occasioned by diarrhea and dysentery and respiratory ailments. These diseases continue to cause a significant patient load at Public Health Service hospitals, clinics, and contract facilities, and at the same time are the cause of sporadic epidemics on Indian reservations.

Under the authority of Public Law 86–121, the Indian Sanitation Facilities Act, a coordinated tribal-Federal attack on the correction of gross deficiencies in domestic and community water supplies, waste disposal systems, and other sanitation facilities is being carried out. Indians participate in project planning, and facilities construction, and assume responsibility for operation and maintenance of completed facilities. The staff time devoted to project engineering, technical support, and training of Indian families and groups has resulted in Indian acceptance and participation in the program to a marked extent. Of the 240 sanitation projects undertaken with 1960, 1961, 1962, and 1963 appropriations for construction of Indian health facilities, 176 have been essentially completed and 63 are in progress at this time (November 30, 1963). The final agreement is being developed with the tribe on mutual participation for the other authorized project. When completed these projects will provide basic sanitation facilities for more than 16,000 Indian and Alaska native families in 206 communities.

In 1964, $3,937,000 was appropriated for 37 sanitation facility projects under construction of Indian health facilities. Allocations for additional projects under the Public Works Acceleration Act provided $3,195,000 for 30 projects and $1,800,000 for 12 projects for obligation in 1963 and 1964 respectively. As of November 30, 1963, construction is essentially completed on 5 of these projects, 24 are under construction, and the remaining 13 are being initiated.

The sanitarian aid program, now in its 11th year, continues to be the key element in bridging the gap of cultural differences and modern environmental health practice. Selected Indians are trained in basic elements of sanitation and then impart this knowledge to their own people. Seventy sanitarian aids furnish

essential information on gross sanitation deficiencies and motivate Indian families and groups to overcome basic health problems. Under a contract with the Alaska Department of Health and Welfare, similar activities are conducted in 61 native villages in Alaska by 7 full-time and 4 part-time aids together with 5 sanitarians.

During 1963, through the educational and technical efforts of the Public Health Service staff and the construction activity, individual families and groups were motivated and assisted in obtaining improvement or installation of 2,400 domestic water supply sources, 3,200 water storage facilities, 3,300 individual sewerage systems or sanitary pit privies at Indian homes and gathering points, and 1,600 refuse disposal facilities. This represents a 42-percent increase in the construction of such facilities over the previous year.

Basic environmental health activities less directly associated with the construction effort have generally shown a 30-percent decrease in level of activity from previous years. These activities include 4,600 comprehensive surveys at Indian homes, 210 inspections of trading posts, 340 health nuisances abated, 120 insect breeding places and rat harborages eliminated, 2,260 premises sprayed for insect control, 105 immunization clinics for the control of rabies among domestic animals, 70 institutional sanitation surveys of hospitals and schools serving Indians, and sanitation work and demonstrations at 240 public meetings of ceremonials attended by more than 26,600 Indians. These activities must be strengthened and carried out at more frequent intervals if the health needs of the expanding Indian population are to be met and the incidence of preventable disease significantly reduced.

Preparatory activities at the local reservation level are essential prerequisites to development of full Indian understanding of the relationship between environment and health. Further, these activities support the preplanning required to process the sizable backlog of project requests into workable sanitation facility projects for programing.

PLAN OF WORK

The 1965 program contemplates the continuation of the on-going sanitation activities at a modestly increased level over fiscal year 1964 through the addition of one engineer, two institutional sanitarians, three sanitarian aides, and one clerical position in the field. These increases will permit sanitation services to be provided to three additional beneficiary groups, will permit the initial determination of home environmental conditions that are conducive to accidents, and it will permit a modest increase in native village sanitation services in Alaska. The increase will also augment the surveillance of institutional environments and followup on completed sanitation facilities constructed under Public Law 86–121.

## DENTAL

The estimate of $1,888,000 is an increase of $99,000 consisting of:

| | |
|---|---|
| Statutory salary promotions | $16,500 |
| Annualization of Civil Service Pay Act increase, Public Law 87–793 | 13,000 |
| Annualization of Uniformed Services Pay Act increase, Public Law 88–132 | 33,000 |
| Program increase | 38,700 |
| Total increase | 101,200 |
| Less: Decrease for 1 day less pay in 1965 | −2,200 |
| Net increase | 99,000 |

NEED FOR INCREASE

Dental decay and periodontal disease are the two most prevalent diseases afflicting the Indian and Alaska native populations. The conditions are greater among these people than among the general population because (1) there exists a tremendous backlog of accumulated neglect, (2) they have a poor understanding of the cause and effect of oral diseases and preventive measures, and (3) the available dental resources cannot adequately cope with the overwhelming amount of dental pathology. This problem is compounded by the sharp rise in the proportion of school age children in the Indian population.

In fiscal year 1963, about 27 percent of the beneficiary population was examined and received only 52 percent of its required care. These services were provided

with a clinician to beneficiary ratio of 1 to 4,200. In the general population it is about 1 to 1,900.

Every effort is made to increase efficiency of available staff by training, redesign of clinics, utilization of auxiliary personnel wherever possible and research on expanded functions for auxiliaries. In 1963 the Division had a 10-percent increase in services rendered over 1962 with a staff increase of only 3.5 percent.

The program increase of $38,700 requested for 1965 provides for one periodontist to help the progress of the periodontal program and three dental assistants for improved utilization of three dental officers.

PLAN OF WORK

The Dental Branch of the Division of Indian Health will continue its program of organizing and providing services that will improve the level of Indian dental health and its contribution to total health to the greatest extent possible within the resources provided. The program, primarily directed toward children, is designed to provide more complete service to an ever increasing segment of the Indian beneficiary population. Preventive services will be receiving additional emphasis. The following table sets forth major workload levels planned for 1965 as compared to 1963 and 1964:

| | 1963 | estimated 1964 | estimated 1965 |
|---|---|---|---|
| Patients examined | 90,796 | 92,000 | 92,000 |
| Patients treated | 75,530 | 77,500 | 78,200 |
| Visits | 185,996 | 187,500 | 187,500 |
| Completed cases | 43,991 | 44,800 | 45,800 |
| Total treatments provided | 335,156 | 338,600 | 341,000 |
| Preventive treatments provided | 24,914 | 32,000 | 36,000 |

## Public Health Nursing

The estimate of $1,783,000, is an increase of $73,800 consisting of:

| | |
|---|---|
| Statutory salary promotions | $14,000 |
| Annualization of Civil Service Pay Act increase, Public Law 87-793 | 19,200 |
| Annualization of Uniformed Services Pay Act increase, Public Law 88-132 | 7,000 |
| Program increase | 37,000 |
| Total increase | 77,200 |
| Less: Decrease for 1 day less pay in 1965 | −3,400 |
| Net increase | 73,800 |

NEED FOR INCREASE

Public health nursing occupies a strategic position in the public health program since it is the public health nurse who has the closest and most continuous contact with the patient and his family, in their own home setting. Her activities affect all areas in the health spectrum in homes, clinics, schools, and communities.

PLAN OF WORK

The program increase of $37,000 for 1965 will provide for the following six additional positions: one public health nurse, three practical nurses, one driver-interpreter, and one clerk. This will allow a modest increase in services. It is estimated that public health nursing can be extended to approximately 800 additional families, and will permit greater depth of services in some areas such as maternal and child health.

### Health Education

The estimate of $545,000 is an increase of $16,500, consisting of:

| | |
|---|---|
| Statutory salary promotions | $4,500 |
| Annualization of Civil Service Pay Act increase, Public Law 87–793 | 9,300 |
| Annualization of Uniformed Services Pay Act increase, Public Law 88–132 | 1,000 |
| Program increase | 3,000 |
| Total increase | 17,800 |
| Less decrease for 1 day less pay in 1965 | −1,300 |
| Net increase | 16,500 |

#### PLAN OF WORK

The program is designed to (1) provide opportunities for Indian and Alaskan native beneficiaries to learn about the cause and spread of diseases; (2) conduct education programs for the beneficiaries; (3) give technical assistance to DIH staff members in the conduct of the educational phases of their activities, this includes developing materials; (4) arrange for the beneficiaries to participate when appropriate in planning and execution of educational programs in their behalf.

#### STATUS OF PROGRAM

Each year more beneficiaries attend classes held for medical self-help and home nursing. There is an increase in attendance at medical care and preventive clinics. The increase in the number of local health committees is evidence of the desire of the beneficiaries to participate more fully in the health program. The program in 1965 will continue from a staff and budget standpoint at about the same level as 1964.

### Field Medical Services

The estimate of $5,355,000 is an increase of $264,600 consisting of:

| | |
|---|---|
| Statutory salary promotions | $37,500 |
| Annualization of Civil Service Pay Act increase, Public Law 87–793 | 42,500 |
| Annualization of Uniformed Services Pay Act increase, Public Law 88–132 | 30,000 |
| Program increase | 162,500 |
| Total increase | 272,500 |
| Less decrease for 1 day less pay in 1965 | −7,900 |
| Net increase | 264,600 |

#### NEED FOR INCREASE

*Increased workload.*—Current facilities have been experiencing an increasing demand for services which require additional resources in staff and supporting services. Outpatient visits in 1963 for therapeutic and preventive services at Indian health centers, schools, health stations, and satellite field clinics totaled 538,300. This exceeded the 1963 estimated load as contained in the 1964 congressional budget by 68,700. The current 1964 estimate of 549,000 visits exceeds the original estimate by 60,500 visits. To meet some of these needs a program increase of $53,500 is requested in 1965.

*New replacement facilities.*—Replacement health centers at Fort Hall, Idaho, Peach Springs, Ariz., and Toppenish, Wash., and health stations at Rocky Boy's, Mont., and Arapahoe, Wyo., will be completed and fully activated by the end of 1964 which will provide space for staff to render expanded services. A program increase of $60,000 is requested to provide for additional staff and supporting services for these new facilities.

*Epidemiology training program.*—An important need of the program is training of professional personnel in didactic and field applications in the area of epidemiology. The primary orientation of the program will be for the training of allied medical personnel. It is expected that knowledge gained through this combination orientation and skills training program will materially contribute to a fuller utilization of the manpower resources of the Division by (1) improvement of use

of DIH resources through use of epidemiological tools; (2) improvement in program planning through scientific analysis of health problems and development of new methods to overcome program deficiencies; (3) provision of epidemiological field experience for DIH personnel; (4) indoctrination of future clinicians and State and local public health workers in the Indian health program activities; (5) provision of a built-in program for development of new methods for disease control; and (6) provision of an important resource in the total plan for a PHS public health physician residency program.

This proposed training program envisions the operation of a continuing division-wide training center at the Phoenix area office for the training and application of personnel in principles and application of epidemiology.

The center will provide comprehensive basic courses of didactic training coupled with field application, plus special seminars for followup and provision for the special needs of the more advanced professional. A program increase of $49,000 is requested to facilitate this activity.

PLAN OF WORK

The request of $5,355,000 for field medical services encompass medical care and preventive health services provided at fixed field facilities, outside hospitals, and at numerous field locations as close as practicable to the widely scattered and isolated groups of Indian and Alaska native beneficiaries. Associated with this activity is the field nutrition program, medical social service and epidemiology training.

Services are provided to the ambulatory. These include diagnosis and treatment, referral of persons needing hospital care and followup by appropriate staff specialists; and the wide range of preventive health services such as immunizations, well-baby care, prenatal and postnatal care; disease detection services and screening through specialized clinics—diabetes, tuberculosis, and ear and eye.

The facilities in which these services are provided include 27 field health centers, 17 school health centers at larger BIA boarding schools, and at over 200 other locations (including the health stations).

Health center services are coordinated by a medical officer in charge. Centers are staffed with a full-time medical officer, nurses (clinical and public health), nursing assistants, pharmacists, laboratory and X-ray technicians, clerical assistants, interpreter-drivers, and maintenance staff. Medical social workers and nutritionists are among the professional specialists whose services are available on a part-time scheduled basis. The health centers and stations provide the office and clinic space as well as supporting services for other members of the health team such as sanitarians, public health nurses, dental officers and their assistants, and community health workers.

School health centers are health facilities located in the larger boarding schools operated by the Bureau of Indian Affairs. Some of these have infirmary-type facilities and more complete medical staff, but most of them are limited to nursing and clerical personnel only. Medical care and preventive health services are provided at the smaller BIA schools by scheduled visits of medical officers and other health personnel from Division of Indian Health hospitals, health centers or by medical personnel from nearby communities under contract. Almost 49,000 Indians and Alaska natives are enrolled in Federal (boarding and day schools), mission, and other nonpublic schools.

Health stations are smaller facilities usually without full-time staff where services are provided by teams of health personnel on either a regularly scheduled or an itinerant basis. These stations are located in small Indian communities where Indians would otherwise be without health services or would need to travel excessive distances. The schedule of services may vary from several visits a week to a station near a busy trading post, to once a year to a remote village in Alaska.

Through these resources and facilities the field medical services program extends preventive health services and medical care for the ambulatory of tens of thousands of beneficiaries who live beyond reasonable distance of hospitals or community medical resources.

High priority is given to directing attention to problems of and services for mothers, infants and preschool children. To attack these high-priority problems provision is made for intensification and expansion of such services as prenatal and child health clinics, immunizations and medical treatment.

There follows a distribution by major fixed facility of the outpatient visits for 1963, 1964, and 1965:

| | Actual, 1963 | Estimated, 1964 | Estimated, 1965 |
|---|---|---|---|
| Health centers | $253,000 | $258,000 | $265,000 |
| BIA boarding schools | 86,800 | 88,000 | 90,000 |
| Health center and hospital satellite clinics (including itinerant clinics in Alaska) | 144,300 | 148,000 | 155,000 |
| Day schools and other clinic locations | 54,200 | 55,000 | 65,000 |
| Total | 538,300 | 549,000 | 575,000 |

*Field health services*

| Obligations by objects | Actual, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| 11 Personnel compensation | $6,213,345 | $6,964,000 | $7,429,000 | +$465,000 |
| 12 Personnel benefits | 699,097 | 734,000 | 760,000 | +26,000 |
| 21 Travel and transportation of persons | 619,472 | 626,000 | 640,000 | +14,000 |
| 22 Transportation of things | 244,166 | 235,000 | 242,000 | +7,000 |
| 23 Rent, communications, and utilities | 391,923 | 395,000 | 399,000 | +4,000 |
| 24 Printing and reproduction | 25,455 | 24,000 | 24,000 | |
| 25 Other services | 803,178 | 807,000 | 810,000 | +3,000 |
| 26 Supplies and materials | 898,437 | 908,000 | 926,000 | +18,000 |
| 31 Equipment | 177,981 | 165,000 | 178,000 | +13,000 |
| 42 Insurance, claims and indemnities | 288 | | | |
| Subtotal | 10,073,342 | 10,858,000 | 11,408,000 | +550,000 |
| Deduct quarters and subsistence charges | 102,195 | 108,000 | 108,000 | |
| Total obligations | 9,971,147 | 10,750,000 | 11,300,000 | +550,000 |

*Administration*

| Activity | Amount available, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Administration | $1,534,039 | $1,747,000 | $1,796,000 | +$49,000 |

The estimate of $1,796,000 is an increase of $49,000 consisting of:

| | |
|---|---|
| Statutory salary promotions | $12,000 |
| Annualization of Civil Service Pay Act increase Public Law 87–793 | 28,000 |
| Annualization of Uniformed Services Pay Act increase Public Law 88–132 | 9,000 |
| Program increase | 3,000 |
| Total increase | 52,000 |
| Less: Decrease for 1 day less pay in 1965 | −3,000 |
| Net increase | 49,000 |

The Division of Indian Health Headquarters staff required to effectively direct a widely dispersed and extremely complex health service are funded under this title. This staff includes (1) positions specializing in the fields of curative and preventive health (2) staff engaged in such specialized fields as nutrition, medical records, medical social work, statistics, financial management, general services and personnel (3) staff required for engineering and construction, who review estimates, and act as liaison between the division of Indian Health and the Construction Branch of the Bureau of Indian Affairs. Within the total authorization for this activity funds and positions are included for the Office of the Bureau Chief, Bureau of Medical Services. This office provides program direction to the Divisions under its supervision. It is financed by allocating its costs among these Divisions.

The 1965 estimate of $1,796,000 for the administration activity provides for a continuation of operation in 1965 comparable to that of 1964.

*Administration*

| Obligations by objects | Actual, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| 11 Personnel compensation | $1,140,964 | $1,309,000 | $1,353,000 | +$44,000 |
| 12 Personnel benefits | 109,115 | 134,000 | 135,000 | +1,000 |
| 21 Travel and transportation of persons | 87,734 | 94,000 | 97,000 | +3,000 |
| 22 Transportation of things | 8,771 | 9,000 | 9,000 | |
| 23 Rent, communications, and utilities | 88,973 | 100,000 | 100,000 | |
| 24 Printing and reproduction | 28,120 | 28,000 | 28,000 | |
| 25 Other services | 23,955 | 40,000 | 40,000 | |
| 26 Supplies and materials | 19,538 | 21,000 | 22,000 | +1,000 |
| 31 Equipment | 26,869 | 12,000 | 12,000 | |
| Subtotal | 1,534,039 | 1,747,000 | 1,796,000 | +49,000 |
| Deduct quarters and subsistence charges | | | | |
| Total obligations | 1,534,039 | 1,747,000 | 1,796,000 | +49,000 |

*Itemization of estimate*

| | Actual, 1963 | Amount available, 1964 | Estimate, 1965 | Increase (+) decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Obligations | [1] $56,033,401 | [1] $59,540,750 | [1] $61,576,000 | +$2,035,250 |
| Unobligated balance lapsing | 357,641 | | | |
| Total amount available | 56,391,042 | 59,540,750 | 61,576,000 | +2,035,250 |
| Applied to contract authorization | 432,108 | | | |
| Transferred to "Operating expenses, public buildings service" (75 Stat. 353) | 13,100 | | | |
| Comparative transfer from other accounts | | −14,000 | | +14,000 |
| Proposed transfer from "National Heart Institute, PHS" | | −566,000 | | +566,000 |
| Appropriation | 56,836,250 | 58,960,750 | 61,576,000 | +2,615,250 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 30,753,894 | 33,102,750 | 34,524,000 | +1,421,250 |
| 12 Personnel benefits | 2,752,774 | 2,883,200 | 2,970,200 | +87,000 |
| 21 Travel and transportation of persons | 1,823,521 | 1,868,600 | 1,890,600 | +22,000 |
| 22 Transportation of things | 776,146 | 782,100 | 789,100 | +7,000 |
| 23 Rent, communications, and utilities | 1,872,788 | 1,902,100 | 1,908,100 | +6,000 |
| 24 Printing and reproduction | 105,692 | 104,000 | 104,000 | |
| 25 Other services | 12,124,598 | 13,126,200 | 13,588,200 | +462,000 |
| 26 Supplies and materials | 5,709,569 | 5,881,300 | 5,929,300 | +48,000 |
| 31 Equipment | 842,346 | 761,500 | 779,500 | +18,000 |
| 42 Insurance, claims, and indemnities | 12,921 | | | |
| Subtotal | 56,774,249 | 60,411,750 | 62,483,000 | +2,071,250 |
| Deduct quarters and subsistence charges | 740,848 | 871,000 | 907,000 | −36,000 |
| Total obligations | 56,033,401 | 59,540,750 | 61,576,000 | +2,035,250 |

[1] Excludes reimbursements as follows: 1963, $667,358; 1964, $660,000; 1965, $660,000.

*Summary of positions and average employment*

| Activity | Positions | | | Average employment | | |
|---|---|---|---|---|---|---|
| | 1963 | 1964 | 1965 | 1963 | 1964 | 1965 |
| Hospital health services | 4,279 | 4,325 | 4,378 | 4,035 | 4,053 | 4,097 |
| Contract medical care | 2 | 20 | 20 | 2 | 12 | 20 |
| Field health services: | | | | | | |
| Sanitation services | 163 | 169 | 176 | 158 | 166 | 173 |
| Dental services | 196 | 196 | 200 | 191 | 193 | 197 |
| Public health nursing | 190 | 190 | 196 | 170 | 184 | 190 |
| Health education | 51 | 51 | 51 | 50 | 51 | 51 |
| Field medical services | 483 | 498 | 525 | 481 | 498 | 521 |
| Total, field health | 1,083 | 1,104 | 1,148 | 1,050 | 1,092 | 1,132 |
| Administration | 154 | 153 | 153 | 134 | 142 | 142 |
| Total | 5,518 | 5,602 | 5,699 | 5,221 | 5,299 | 5,391 |

PASSENGER MOTOR VEHICLES

Authorization is requested for purchase of 36 passenger vehicles of which 33 are for replacement. All vehicles to be replaced will have met the standards as to age or mileage.

The additional vehicles scheduled for procurement in 1965 are as follows:

| Program and location | Number of vehicles | Type |
|---|---|---|
| Contract medical care: | | |
| Billings area | 1 | Sedan. |
| Oklahoma City area | 1 | Do. |
| Portland area | 1 | Do. |

HIGHLIGHT STATEMENT

Chairman HAYDEN. I would appreciate it if you would describe your budget request, bringing to the attention of the committee the main features of it, indicating where there are increases or decreases, and providing information to explain the desirability of these increases or decreases. Your prepared statement will be printed in the record, if you desire to highlight it.

(The statement referred to follows:)

STATEMENT BY DR. CARRUTH J. WAGNER, CHIEF, DIVISION OF INDIAN HEALTH

Mr. Chairman and members of the committee, the Indian health program of the Public Health Service is unique among Federal programs. This program encompasses a comprehensive community health services approach to meet the total health needs of the Indian beneficiary, as an individual and as a member of a community.

Currently, some 380,000 Indians and Alaska natives come within the scope of the Indian health program. Approximately 43,000 are in Alaska and the remainder in the 23 Federal Indian reservation States. They are young people; nearly 60 percent are under 20 years of age. They live in circumstances which differ from those of any other population group in the country. The majority do not have the organized community affiliations of other Americans for meeting their physical, social, and economic needs. With few exceptions, these people live in conditions of abject poverty. More than 50 percent live in one- or two-room dwellings, the majority constructed by themselves from materials indigenous to their location, and the average occupancy of this one- or two-room house is 5.4 persons. More than 80 percent must haul or carry all the water for their household use, and 70 percent of this water comes from potentially contaminated

sources. More than 80 percent have inadequate waste disposal facilities and 12 percent no facilities at all.

They are isolated, both geographically and culturally from non-Indian society. Many do not speak English. Despite the efforts of Bureau of Indian Affairs programs designed to overcome the problem, there is little employment available on reservations, and the level of education and vocational training of most of the people prohibits their competing favorably in a non-Indian work setting. The average income of the majority of these families is under $1,500 a year.

In all, they are a people confronted with tremendous obstacles in an attempt to attain a higher standard of living. Chief among these is their low health status which is about that of the general population a generation ago.

The goal of the Indian health program is to elevate the health status of the American Indian and the Alaska native to the highest possible level. To attain this goal, the Public Health Service has established the following program objectives:

1. To provide health services which assure achievement of the health goal through self-help activities conducted by and with the Indians and Alaska natives to the ultimate realization of their assumption of fuller responsibilities in meeting their health needs.

2. To manage program resources (manpower, money, and materials) in a manner that provides a coordinated and balanced preventive, curative, and rehabilitative health program through a constantly updated areawide operations plan, initiated at the service unit level and consolidated in a comprehensive division plan with Indian cooperation and consultation.

3. To provide continuing appraisal of health status to insure efficient application of effort in those areas that will have the greatest impact on achieving the health goal, coupled with continued development of additional tools for measurement, evaluation, and application.

4. To provide opportunity for total individual staff growth and development through management of manpower resources.

5. To foster and promote full and equitable utilization of all outside resources, public and private, with particular reference to State and local government responsibilities for their Indian citizens.

### Accomplishments

Very definite improvements in both Indian and Alaska native health status have been realized in the past decade. We are continually striving to make further improvements as rapidly as possible. Two of the most dramatic improvements since 1954 are reflected in reductions in infant death rates of 36 percent for the Indians and 20 percent for Alaska natives, and 46 percent and 87 percent, respectively, in tuberculosis deaths in the two groups.

Satisfaction with such reductions is tempered by the still unfavorable comparisons with our population as a whole: the present Indian infant death rate is about two times and the Alaska native rate is two and one-half times greater than that for infants in the population as a whole; the tuberculosis death rates for the two populations are six times greater than the all-races rate. This same situation exists in many other categories: deaths from gastroenteric conditions, for example, where the Indian rate is over six times greater than the all races rate; and in deaths from influenza and pneumonia which are two and three times greater among Indians and Alaska natives, respectively, than the general population.

There is one highly significant development that deserves special attention since it affects the total Indian health program and mirrors the most important kind of progress. I refer to the growth in beneficiary acceptance of their health services.

There are many reasons for the Indian's and Alaska native's reluctance to accept many health services available to him. There is a basic distrust of the non-Indian and non-Indian practices which is especially prevalent in the older Indians. There is a clash of conflicting cultures; the old with its shroud of mystery, folklore and ancient customs to which the older Indian clings because it is his way of life; and the new, emerging as a result of modern education, among the young. These cultural differences make the provision of modern health services quite difficult in many areas throughout Indian country. In addition, there are other problems caused by the dispersion of Indian family units over large, often inaccessible areas, and language barriers that make communication difficult and, occasionally, impossible.

One of the greatest challenges to the Indian health staff is assisting the Indian to accept new beliefs and attitudes toward health care and to adopt better personal and community health practices. We strive constantly to provide better services, both to best utilize our resources and to encourage effective and efficient use of these services by the Indian.

In the category of hospital and clinic facilities, 5 hospitals which were inadequate and unsafe have been replaced; 2 new hospitals have been constructed; through Public Law 151, 110 beds have been added in 15 community hospitals serving Indians and non-Indians; there are contractual arrangements in some 200 communities, where we have no facilities, to provide the Indian beneficiary with hospital care; 9 field health centers and 29 field health stations have been built to provide curative and preventive health outpatient services close to the Indians' and Alaska natives' home.

We are pleased to report that the Indians are using these facilities in ever-increasing numbers. In fiscal year 1963, hospital admissions totaled approximately 87,500, 6,000 more than in 1962; and the number of outpatient visits at hospitals and clinics rose to 1,260,000 an increase of 145,000 over 1962.

This increase in acceptance of health services is being reflected in many other ways by the Indians and Alaska natives, as demonstrated by their increased participation, both tribal and individual, in other Indian health activities—sanitation projects, immunization clinics, and field testing for tuberculosis, to cite a few. As a direct result of this increased participation in modern health activities, recent data show that tuberculosis patient admissions decreased 20 percent from 1962 to 1963, and that tuberculosis is no longer one of the 10 diseases of highest reported frequency among Indian beneficiaries. At this time, the leading illnesses, in order of frequency are gastroenteritis, otitis media, pneumonia, measles, streptococcal throat, influenza, trachoma, gonorrhea, dysentery, and chicken pox. Most of these are clearly preventable, which emphasizes the need for major emphasis upon preventive health activities in the hospital and field health program.

## Indian Health Activities

The Public Health Service provides direct care to Indian and Alaska native beneficiaries through a system of 50 hospitals, each with inpatient and outpatient services; field health centers; field stations; and special health centers and clinics at Bureau of Indian Affairs schools. In addition, where Public Health Service facilities or services are limited or nonexistent, health services are provided through contractual arrangements with non-Federal hospitals, private physicians and dentists, community pharmacies and State and local health agencies.

As mentioned previously in this statement, both hospital admissions and outpatient visits at clinics and field stations have shown steady increases, especially from 1962 to 1963. The pediatric workload is high, comprising more than one third of the general hospital discharges, and accounting for a large proportion of outpatient services. Another major portion of the services is directed to Indian and Alaska native mothers. Treatment of patients for acute accidents and injuries constitute another major portion.

### HOSPITAL HEALTH SERVICES

The 1965 request for hospital health services will provide for: (1) the operation of 50 Public Health Service Indian hospitals and attached outpatient clinics; (2) continuance of the practical nurse school training program for Indian girls which is associated with the Indian hospitals; and (3) the maintenance of the hospitals and other Division of Indian Health facilities, consisting of health centers, stations, school clinics, and staff quarters.

The training of young women of Indian descent as practical nurses has been one of the most successful efforts of the Indian health program. At the school of practical nursing in Albuquerque, some 80 girls are trained and graduated each year. Following graduation, they take State board examinations to qualify as licensed practical nurses, and are then assigned to a hospital or field health position. Until last year, graduates were utilized only in Indian hospitals, but some dozen members of the August 1963 class were employed by the Clinical Center at the National Institutes of Health, the Public Health Service Hospital at Staten Island, and in two Alaska native hospitals.

A second practical nurse training program is conducted at the Public Health Service Experience Center at Shiprock, N. Mex., where Indian graduate practical

nurses are taught to assist graduate public health nurses in the provision of services in homes, schools, and field clinics.

A third program for practical nurses is now being instituted as a result of funds made available in 1964. Selected groups of licensed practical nurses are now being given additional clinical training and experience at Indian health facilities in South Dakota which will broaden their skills and enable them to relieve registered nurses of many less complex nursing functions.

#### CONTRACT MEDICAL CARE

In locations where direct medical and dental services are not available under the Public Health Service program, these services are provided through contractual arrangements with community hospitals, laboratories, pharmacies, private physicians, clinics, and dentists. In addition, only occasionally used special diagnostic and therapeutic services are purchased through contract, making it possible for the Division of Indian Health to avoid the expense of supporting these activities on a full-time basis. Emergency hospitalization and medical care in locations where an Indian hospital or clinic is not readily available are also provided under this program.

#### FIELD HEALTH SERVICES

All preventive health services and medical care provided outside hospitals are included in field health services. Basically, the field health program is designed to bring health services to the tens of thousands of Indians and Alaska natives who live considerable distances from Indian hospitals or community health resources. It covers services provided in homes, communities, villages, at field health stations, and at schools and health centers.

Encompassed are medical and dental diagnoses and treatment, clinical and public health nursing, referral of persons needing hospital care and followup by appropriate specialists; the wide range of preventive health services such as immunizations, communicable disease surveillance and control; followup home visits; well-baby care; prenatal and postnatal care; disease detection; screening and treatment through specialized clinics—diabetes, tuberculosis, heart, cancer, and ear and eye; medical social services; guidance in nutrition problems; health education; accident prevention; environmental health services and implementation of a cooperative Federal-tribal program to construct water supply and other sanitation facilities.

The extent of services ranges from the continuously operated fully staffed health center, to the smaller, more remote health station which may be open one, two, or three times a week, to the hundreds of villages in Alaska which are accessible only by bush plane and dogsled, and where medical aids maintain radio contact with Indian health physicians to receive advice and instructions on care of the sick or injured. Medical teams fly into these villages at least once or twice a year.

Through a new program of epidemiology training now being formulated, it is the Division's intent to provide professional personnel with formal instruction combined with intensive field experience in the application of epidemiological principles and methods, and thus increase their capabilities to fulfill assignments in the Indian health program.

### Construction of Indian Health Facilities

#### HOSPITALS, FIELD HEALTH CENTERS, AND FIELD HEALTH STATIONS

To successfully conduct the Indian health program following conventional, up-to-date medical practices, modern fully operative, functionally arranged facilities are essential. Although considerable progress has been made in correcting some of the deficiencies which existed at the time of transfer of the program from the Bureau of Indian Affairs to the Public Health Service, inadequacies still exist due to age, obsolescence, overcrowding, outmoded functional arrangements and equipment, deferred maintenance, and unsafe conditions. Recent improvements include: completion of a 36-bed hospital on the San Carlos Apache (Ariz.) Reservation; additions and alterations completed at the Bethel, Alaska, hospital; alterations completed at the old Fort Peck, Mont., hospital to convert it to a field health center. Schematic drawings are being completed for new hospitals at Fort Yates, N.Dak. (27 beds), and Barrow, Alaska (12 beds), and for additional alterations to the Gallup, N. Mex., hospital. The design of a new 80-bed hospital at Lawton, Okla., is underway. An addition to the Tahlequah,

Okla., hospital also is under construction and a planning study is underway for the 200-bed Indian Medical Center, at Phoenix, Ariz.

Many field health facilities remain grossly inadequate or nonexistent, and, at various locations, services are being provided in school basements, mission or chapter houses, trading posts, and other dwellings, which are totally lacking in suitability or adaptability for the provision of proper medical care. Some alleviation of these inadequacies was realized during the past year with the construction of new field health stations at Jemez and Santo Domingo, N. Mex.; Dennehotso, Ariz.; Heart Butte, Mont.; and Fort Thompson, S. Dak. Three more health stations are completed or nearing completion at Arapahoe, Wyo., Rocky Boys, Mont., and Peach Springs, Ariz. Construction of three health centers at Fort Hall, Idaho, Dulce, N. Mex.; and McLaughlin, S. Dak., has been initiated. Drawings were completed for additional stations at Dennebito Dam, Ariz., and Gambell, Alaska, and planning progress can be reported for health centers or clinics at Hooper Bay, Alaska, Gila Crossing, Poston, and Shonto, Ariz., Toadlena, N. Mex., Whitehorse, S. Dak., and Toppenish, Wash.

STAFF QUARTERS

Housing for Indian health field employees in remote, sparsely settled locations where housing is unavailable unless provided by the Government, has been a constant source of concern. Without adequate quarters, recruitment and retention of professional and technical personnel is seriously hampered. Current appropriations provide for the construction of 32 new quarters. This year, 56 additional units are planned, including 4 new and 52 to replace temporary or inadequate units, at 7 locations.

SANITATION FACILITIES CONSTRUCTION

One of the most glaring deficiencies of the Indian and Alaska native physical environment is the water supply. More than 70 percent of the people drink, potentially contaminated water. Further, this water must be hauled or carried, and is in short supply. Another glaring deficiency is the inadequacy or absence of facilities for the disposal of human and other household wastes.

The deleterious effect these conditions have upon the health status of the Indian are without question. There is no doubt that they are responsible for the spread of organisms causing diarrheas and dysenteries which plague the Indian people, and contribute to the rampant spread of communicable diseases throughout Indian reservations and communities, and Alaska native villages.

Environmental health activities of the Division include motivation and education of Indians to desire a better environment, construction of needed sanitary facilities, and training of Indians in use and maintenance of these facilities. Preparatory activities at the local reservation level prior to construction are essential to development of full Indian understanding of the relationship between environment and health. Further, these activities are prerequisites to the conversion of Indian requests into workable sanitation facility projects.

Most of the construction is accomplished under the authority of Public Law 86–121. This has been augmented through the accelerated public works program authorized under Public Law 87–658. In all instances, planning and implementation of construction activities are done by the Public Health Service cooperatively with the respective Indian tribes or Alaska native groups. The tribes themselves contributed about 30 percent of the costs of the projects in labor, money, or materials.

It is estimated that upon completion of the 319 projects authorized through 1964, more than 20,000 Indian and Alaska native homes will be served in more than 250 communities. This will mean that approximately 25 percent of the total estimated needs will have been met, and that, at the current regular budget level of construction work, it will take about 15 years to meet the total current estimated need for such facilities.

Educating the beneficiaries in good environmental health practices and in care and maintenance of facilities has always been an integral part of the sanitation program. During the past year, increased emphasis has been placed on training individual homeowners in the care and utilization of their own completed sanitation facilities, and a special "Home Owner's Guide" has been developed for their use.

In summary, the appropriation request before you for Indian health activities, in the amount of $61,576,000, represents an increase of $2,035,250. In addition to the cost of mandatory items such as statutory promotions and increased pay

cost requirements in the amount of $1,118,250, the funds will provide for: (1) an anticipated increase in hospital workload; (2) a slight increase in the workload and higher costs of contract medical care; and (3) an increase in the preventive health activities consisting of sanitation, dental, public health nursing, and field medical services.

The appropriation request for the construction of Indian health facilities, in the amount of $8,643,000, provides for: (1) the construction of an 80-bed general hospital at Lawton, Okla., $1,965,700; (2) the construction of a health center and three health stations, planning funds for subsequent construction at three other locations, plus equipment funds for the health center at Toppenish, Wash., $382,100; (3) alterations projects at 12 locations and planning for subsequent alterations at 2 other sites, $864,700; (4) 56 staff quarters, $1,430,500; and (5) the construction of 38 sanitation facility and water supply projects on 23 Indian reservations, $4 million.

We believe the funds recommended this year will enable us to make further advances in improving the health status of the Indians and Alaska natives who come within the scope of this program.

Dr. WAGNER. The Indian health program is unique among Federal programs. Currently, approximately 380,000 Indians and Alaska natives come within the scope of the Indian health program. Although the Government continues to be very active in alleviating the problems of the American Indian and Alaska native, with few exceptions these people live in conditions of abject poverty.

Their housing is extremely inadequate, unsanitary, and overcrowded. Employment opportunities are either nonexistent or restricted since their level of education and acculturation minimizes their competing in a non-Indian work climate. They are isolated both geographically and culturally from the non-Indian society. They represent a people who, through no fault of their own, are unable to raise their standard of living and health status.

### HEALTH IMPROVEMENT OF AMERICAN INDIAN AND ALASKA NATIVES

In the past decade, very definite improvements have been realized in the health status of the American Indian and Alaska native. Two of the most dramatic advances since 1954 are reflected in reductions in infant death rates of 36 percent in the Indians and 20 percent in Alaska natives, and reductions of 46 percent and 87 percent, respectively, in tuberculosis deaths in the two groups.

Satisfaction with such reductions is tempered by the still unfavorable comparisons with the general population: the present Indian infant death rate is almost two times, and the Alaska native rate is 2½ times greater than that for infants in the population as a whole; the tuberculosis death rates for the two populations are about six times greater than the all-races rate. This same situation exists in many other categories—deaths from gastroenteric diseases, for example, where the Indian rate is more than six times greater than the all-races rate—and in deaths from influenza and pneumonia, two and three times greater among Indians and Alaska natives, respectively, than the general population.

It is evident that much remains to be accomplished to raise the health level of the Indian to the highest possible level.

### INDIAN HEALTH PROGRAM

The Indian health program resources and activities involve the operation of hospitals, health centers and clinics, where medical, nursing, and dental care is provided, and the conduct of all types of

preventive health activities, including maternal and child care, disease surveillance and control, immunization programs, special clinics, health education and environmental health services.

One of the most difficult problems encountered in the Indian health program has been the reluctance of the Indian and Alaska native to accept the services available to him. Evidence that we are making recognizable inroads on this problem is shown by the continuously increasing use of facilities and services, particularly this past year: hospital admissions rose to 87,500 in 1963—6,000 more than the previous year, and the number of outpatient visits at hospitals and clinics increased to 1,260,000—145,000 more than in 1962.

This increasing acceptance of modern health services is also reflected by the active participation, both tribal and individual, in planning and implementing Indian health activities.

### Construction of Health and Sanitation Facilities

Other areas in which significant progress has been made are in construction of Indian health facilities and sanitation facilities. During the past year, a new 36-bed hospital was completed and put into service on the San Carlos Apache (Arizona) Reservation; additions and alterations were completed at the Bethel, Alaska, hospital and the Fort Peck, Mont., hospital was altered for better use as a field health center; drawings were completed for the design of two new hospitals at Fort Yates, N. Dak. (27 beds) and Barrow, Alaska (12 beds) and for an addition and alteration to the Gallup, N. Mex. hospital; and the planning for a new 80-bed hospital at Lawton, Okla., is now underway. A planning study has been initiated for a new medical center at Phoenix, Ariz.

### Cooperative Efforts of Public Health Service and Indian and Alaska Groups

Under authority of Public Law 86–121, augmented by projects approved under the accelerated public works program (Public Law 87–658), sanitation projects have been constructed through the cooperative efforts of the Public Health Service and the respective Indian tribes or Alaskan native groups. Upon completion of the 319 sanitation and water supply projects authorized through 1964, more than 20,000 Indian and Alaskan native homes will be served in more than 250 communities.

### Budget Request Increases

The appropriation request before you in the amount of $61,576,000 represents an increase of $2,035,250. In addition to the cost of mandatory items such as statutory promotions and increased pay cost requirements in the amount of $1,118,250, the funds will provide for (1) an anticipated increase in hospital workload; (2) a slight increase in the workload and higher costs of contract medical care; and (3) an increase in the preventive health activities consisting of sanitation, dental, public health nursing, and field health services.

The appropriation request also includes $8,643,000 for construction of Indian health facilities to provide for (1) the construction cost of an 80-bed general hospital at Lawton, Okla., $1,965,700; (2) the con-

struction of a health center and three health stations, planning funds for subsequent construction at three other locations, plus equipment funds for the health center at Toppenish, Wash., $382,100; (3) alteration projects at 12 locations and the planning for subsequent alterations at 2 other sites, $864,700; (4) 56 staff quarters, $1,430,500; and (5) the construction of 38 sanitation facility and water supply projects on 23 Indian reservations, $4 million.

We believe the funds recommended this year will enable us to make further advances in improving the health status of the Indian and Alaska native.

I would be very pleased to answer any questions that the committee may have, Mr. Chairman.

### Additional Personnel

Chairman Hayden. Would you please indicate for the committee the number of additional personnel being requested for the Indian health activities during fiscal year 1965, and explain why it is necessary that your personnel complement be increased?

Dr. Wagner. Mr. Chairman, the total personnel increase for 1965 as compared to 1964 will amount to 92 man-years. This will consist of 44 man-years in the hospital health services which will provide for an anticipated increased workload both in the hospital inpatient care and in the hospital outpatient care. It will also provide 8 man-years for the annualization of the moneys appropriated last year for the hiring of professional supervision for the contract medical care program; and it will permit the hiring under the field health services of 7 additional staff in the sanitation services which deal with home environmental conditions and institutional sanitation activities; 4 in the dental services which will permit a very modest increase in the dental services; and 6 in the public health nursing area which will provide in the field health services for increased activities here; and finally, 23 in the field medical services which provides the clinic nursing, the public health medical care, and the public health activities outside of the hospital.

### Training Indian Women in South Dakota

Chairman Hayden. Last year the Congress added $105,000 to your budget for the purpose of training Indian women as nurse assistants and practical nurses in facilities available to you in South Dakota. Would you please tell the committee what you were able to do with this appropriation?

Dr. Wagner. We set up, Mr. Chairman, the training program in the Rapid City T.B. Hospital. Practical nurses were enrolled in this program in November. It is anticipated that 20 students in all will have completed the course in 1964, and we are projecting that 30 more will be trained in 1965.

Chairman Hayden. You are having no trouble in finding educated persons?

Dr. Wagner. These are already trained practical nurses in our program who are given additional training which allows us to expand their function and helps alleviate the disparity we have between the numbers of doctors and professional nurses.

PREVENTIVE HEALTH TRAINING

Senator HAYDEN. What are you doing about training doctors in the preventive health field and what is your program for 1965?

Dr. WAGNER. Improvements in the health status of the Indian and Alaska natives since the transfer of responsibility in 1955 has been primarily due to strengthening of the clinical care program. Future progress is dependent upon major emphasis on the preventive care program which would seek to prevent illness before it occurs.

Programing with this type of emphasis is dependent upon the acquisition of specially trained physicians with a competency in preventive medicine. The Division of Indian Health has a need for 139 of these specialists. Of the almost 300 physicians on duty, only 10 are so trained.

Recognizing this problem, we are working on an affiliated residency with the University of Oklahoma and Oklahoma State Health Department toward the initiation of a training program which, over a 3-year period, would qualify a physician for service in this specialized field. One of the 3 years would be in the Indian health program; thus we would accrue service during training.

If we are to obtain anywhere near the number we need, we are going to have to train them ourselves.

Planning with Oklahoma was not completed in time to request funding support in the 1965 budget submission.

Senator HAYDEN. How much would you need to initiate this program in 1965?

Dr. WAGNER. The following are the costs for this training program. In the first year three physicians would be in training; in the second year, six; and in the third year, nine. All years from that point onward would involve the training of nine individuals.

| | |
|---|---|
| Fiscal year 1965 | $110,000 |
| Fiscal year 1966 | 152,000 |
| Fiscal year 1967 | 194,000 |

Chairman HAYDEN. You are planning some other new programs; are you not?

Dr. WAGNER. Yes; Mr. Senator, on the basis of evaluation of our most pressing Indian health problems and program deficiencies we have planned a number of programs designed to permit us to make more effective use of our available personnel resources in fulfilling our responsibilities and at the same time contribute to staff development.

The Epidemiology Training Center, for which funds have been requested in the fiscal year 1965 budget, is one of these.

Continued improvement in the health status of the American Indian and Alaska native will require increasing stress on the preventive health aspects of our program and reorganizing the limited extent to which most health personnel are provided epidemiological training in their basic education, this Center is essential to train our medical and allied medical staffs in the use of this most important health tool. It is our hope this training will not only provide more effective program operation in evaluation of disease patterns, program planning, and health services but will also permit further expan-

sion of responsibilities of nurses, social workers, health educators, and other allied health personnel. We plan to use this Center to train health workers from all 24 States in which we operate the Indian health program.

### Home Nursing Program

A second program that shows real promise is the home nursing program which was initiated through the combined efforts of the Bureau of Indian Affairs, the American Red Cross, and the Public Health Service on the Whiteriver Apache Reservation in Arizona.

In this program activity, we have adapted home nursing and first aid construction material to meet the peculiar needs of the Indian. Courses are then presented to the Indian mothers who, in turn, become instructors and organize more classes. Our goal is to achieve a trained Indian mother in each Indian home. This will contribute significantly to early detection of illness, better infant care, and health practices in the home with resultant improvement of health status through self-help.

We have made a real effort to equip our key personnel with the skills of modern program management. This has resulted in better planning and program operations as evidenced in increased work output without increased staff. Examples of this increased production include an 18-percent increase in pharmacy services and a 10-percent increase in dental services.

Senator Hayden. Will these programs demand an increase in personnel?

### Epidemiology Training Program

Dr. Wagner. For the immediate future we feel that the epidemiology training program can be effectively operated with the minor increase requested in the 1965 budget.

No additional staff will be needed for the Indian first aid—home nursing—self-help training program since this is handled by our field health education staff.

Successful operation of ongoing and new training activities will require coordination of training responsibilities at each area office. Currently only three of our area offices have directors of training. We anticipate over the next several years adding similar positions to the remaining area offices.

### Affiliated Residency Training Program

The affiliated residency training program in preventive medicine for physicians will require the addition of physician instructors, the number depending upon the number of residents to be trained each year on the Indian reservation.

Senator Hayden. How much interference with the regular work of the hospitals and clinics will these training programs entail?

Dr. Wagner. None, sir. We feel the training is essential to our basic responsibility of elevating the health status of the Indian and

Alaska native and constitutes an integral part of the regular work of providing health services at hospitals and clinics.

### "Attack on Poverty" Program

Senator Hayden. What part are you playing on the "attack on poverty" program?

Dr. Wagner. We have prepared several proposals by which we feel the Indian health program can play a very active role in this very worthwhile effort. One plan proposes the training of Indian medical auxiliaries. Seven hundred and fifty of these could be trained and put into program operation within 3 years. These medical auxiliaries would serve much as our nursing, sanitation, and dental assistants now do to extend the services of our professional staff to more Indian and Alaska native families and permit the more efficient use of the physician in the program.

### Construction Program Justification

Chairman Hayden. There will be placed in the record the budget estimate for construction of Indian health facilities which amounts to $8,643,000, a sum $3,293,000 in excess of the amount appropriated last year. However, because of unobligated balances available last year and considering a small one available this year, the total available for obligation in fiscal year 1965 is $4,074,926 less than was available on July 1, 1963. The justification for the construction program estimate will be printed in the record.

(The justification statement referred to follows:)

*Construction of Indian health facilities*

| | |
|---|---|
| Appropriation, 1964 | $5,350,000 |
| Unobligated balance from prior years | 7,639,426 |
| Total available for obligation | 12,989,426 |
| Decreases: | |
| Hospitals and clinics | 4,918,151 |
| Personnel quarters | 1,521,870 |
| Alterations | 2,147,428 |
| Community hospitals serving Indians and non-Indians | 32,327 |
| Construction of Indian sanitation facilities | 4,098,150 |
| Total | 12,717,926 |
| Carried into 1965 | 271,500 |
| Increases: | |
| Hospitals and clinics | 2,347,800 |
| Personnel quarters | 1,430,500 |
| Alterations | 864,700 |
| Construction of Indian sanitation facilities | 4,000,000 |
| Total | 8,643,000 |
| Total available for obligation | 8,914,500 |

*Analysis by activities*

| | Amount available, 1964 | Fiscal year 1965 | | | Total available, 1965, compared to total available, 1964 |
|---|---|---|---|---|---|
| | | Unobligated balance from prior years | 1965 budget requests | Estimated total available | |
| 1. Hospitals and clinics | $4,978,151 | $60,000 | $2,347,800 | $2,407,800 | −$2,570,351 |
| 2. Personnel quarters | 1,521,870 | ---------- | 1,430,500 | 1,430,500 | −91,370 |
| 3. Alterations | 2,158,928 | 11,500 | 864,700 | 876,200 | −1,282,728 |
| 4. Community hospitals serving Indians and non-Indians | 32,327 | ---------- | ---------- | ---------- | −32,327 |
| 5. Construction of Indian sanitation facilities | 4,298,150 | 200,000 | 4,000,000 | 4,200,000 | −98,150 |
| Total | 12,989,426 | 271,500 | 8,643,000 | 8,914,500 | −4,074,926 |

## Highlight Statement

Successful conduct of the Indian health program requires modern, fully operative, functionally arranged facilities. Although considerable progress has been made in correction of deficiencies that existed at time of transfer from the Bureau of Indian Affairs to the Public Health Service, many serious inadequacies must yet be rectified. This inadequacy is a product of age, obsolescence resulting from transition to modern hospital practice, lack of facilities, and deferred maintenance.

Many of the Indian hospitals are not geared to meet the concepts of conventional up-to-date medical practices. They lack the functional arrangements and equipment to carry out an effective medical program. To aid in correcting this problem, the program for 1965 contains construction funds for a new (replacement) hospital at Lawton, Okla. Planning funds for this hospital were appropriated in fiscal year 1963. Additional funds are included under the alterations activity to plan for modernization of the hospital at Tuba City, Ariz. Funds for a feasibility study were appropriated in fiscal year 1964 for the Tuba City project. In addition funds are provided for alteration projects at 13 other locations to correct hazards or for improvements and sundry repairs to elevate facilities to an acceptable standard.

Much of the Indian health program is carried on in field health centers and stations. At many locations, services are currently being provided in school basements, mission or chapter houses, trading posts, and other nonsuitable locations which are totally inadequate to provide proper medical care (small size, layout, lack of equipment, etc.). Provision is made in this request for construction of a health center and three stations and planning funds for subsequent construction at three other locations.

The absence of or lack of suitable housing in remote areas very often limits recruitment and retention of professional and technical personnel. Based on studies at 7 locations, it has been determined that 56 additional units are necessary. This includes 4 new units and 52 to replace temporary or inadequate units.

To correct gross deficiencies in Indian and Alaska native sanitation facilities, funds are also included to provide for 38 construction projects on 23 Indian reservations and in approximately 15 communities in the States of Oklahoma, California, and Alaska.

Funds requested in 1965 and justified on a project basis in this estimate follow:

| | |
|---|---|
| Hospitals and clinics: | |
| Hospitals | $1,965,700 |
| Health centers and stations | 382,100 |
| Total, hospitals and clinics | 2,347,800 |
| Personnel quarters | 1,430,500 |
| Alterations | 864,700 |
| Sanitation facilities (Public Law 86-121) | 4,000,000 |
| Total, fiscal year request | 8,643,000 |

*Hospitals and clinics, 1965 request, $2,347,800*

Public Health Service Indian Hospital, Lawton, Okla ..... $1,965,700

TOTAL PROJECT COST ESTIMATE

| | |
|---|---|
| Planning funds appropriated, fiscal year 1963 | $115,000 |
| Construction funds requested in fiscal year 1965 | 1,965,700 |
| Equipment funds to be requested in fiscal year 1966 | 265,000 |
| Total estimated project cost | 2,345,700 |

PROPOSED PROJECT

The proposed project involves the construction of an 80-bed general medical and surgical hospital, including outpatient clinics and adjunct facilities, to replace the existing facility.

EXISTING FACILITY

The existing facility is obsolete and completely inadequate. It was constructed as three separate buildings which are now connected by corridors. The oldest unit, the east wing constructed in 1915, was condemned for patient use in the mid-1940's. Because of lack of space it has continued to be used for storage, administrative offices, a medical library and maintenance shops. The central unit was constructed in 1931 and currently houses the general medical and surgical services. Until fiscal year 1962 this unit had serious structural defects, involving failure of the roof trusses, separation of the walls, and dangerous weakening of the roof. (Emergency repairs were made to the roof trusses and the roof at a cost of $39,000.) These repairs removed the immediate threat to the safety of patients and staff.

The inefficient and inadequate arrangement of the building in general, however, remains unchanged and still poses a hazard to the efficient and safe operation of the hospital. This building does not lend itself to economical modernization and expansion. The surgical suite is obsolete, crowded, poorly located, inadequately protected against fire and explosion and poses a serious hazard to patients and staff. The pharmacy, laboratory and kitchen are overcrowded and obsolete.

The Joint Committee on Accreditation of Hospitals has repeatedly cited the poor and hazardous conditions noted above.

The third unit or west wing, built in 1937, was originally constructed as a tuberculosis sanitarium and presently houses pediatric and obstetrical services. The space provided and arrangement of these facilities is completely inadequate. The delivery room, like the surgical suite, lacks shockproof and sparkproof equipment and has no grounding precautions. These deficiencies make this room potentially dangerous to patients and staff alike.

The basement of this structure houses the outpatient and dental clinic. These facilities are crowded and obsolete and the waiting room is too small and entirely inadequate.

Considerable thought has been given to the possibility of modernizing this hospital by demolishing the east unit; replacement, alteration, and expansion of the central unit; and renovation of the west wing. Since this approach did not prove feasible, replacement of the entire facility is recommended.

PROPOSAL

A new facility of 52,800 square feet containing 80 beds and 10 bassinets is proposed. This project will be planned to: (1) Conform to the minimum requirements set forth by the Hill-Burton program, and (2) provide sufficient space for comprehensive therapeutic and preventive medical and dental services.

UTILIZATION OF EXISTING FACILITY

In spite of the obsolete, inadequate, and hazardous condition of this hospital, it has experienced consistently high utilization of both inpatient and outpatient services over the past 4 years. The table identifies the major workload elements:

| | Fiscal year 1960 | Fiscal year 1961 | Fiscal year 1962 | Fiscal year 1963 |
|---|---|---|---|---|
| Admissions | 1,889 | 1,761 | 1,734 | 1,680 |
| Average daily patient census (excluding newborn) | 61 | 52 | 53 | 58 |
| Births | 300 | 295 | 312 | 310 |
| Outpatient medical visits (facility) | 18,256 | 18,581 | 19,335 | 18,573 |
| Dental visits (facility) | (1) | (1) | 2,100 | 2,250 |

[1] Not available.

PROPOSED PLAN FOR REPLACEMENT OF LAWTON HOSPITAL

The proposed plan is to replace the existing facility with a new hospital of 80 beds and 10 bassinets. On the basis of past experience and projected availability of more comprehensive services, including preventive health activities, it is estimated that the patient load, excluding newborn, will average about 65 a day in the new facility, representing an occupancy rate of about 81 percent.

Based on the pattern of hospitalization and length of hospital stay it is proposed that the 80 beds be distributed as follows:

| | |
|---|---|
| Medical and surgical | 48 |
| Pediatrics | 20 |
| Obstetrics and gynecology | 12 |
| Total | 80 |

The estimated outpatient medical visits will approximate 20,000 annually, and dental visits about 2,350.

COMMUNITY HOSPITAL FACILITIES

For the two counties from which the majority of the Lawton patients are drawn (Caddo and Comanche) there are a total of 266 acceptable beds, or 64 percent of the total acceptable beds required to meet the hospital needs of these counties. According to the 1963 Hill-Burton State plan, Comanche County Hospital (128 beds) showed an 88.3 percent occupancy rate and Southwestern Clinic (128 beds) showed an occupancy rate of 77.6 percent. These two hospitals are located in Lawton and would be the major general hospital resources for the patient load presently carried at Lawton Hospital. It is doubtful that they could provide the services needed without considerable expansion.

Both hospitals have been approached as to their willingness to expand their present facilities for Indian use under Public Law 85-151. Both have indicated that they were reluctant to consider such a proposal. The Indian beneficiaries of the Lawton Public Health Service Hospital are also on record as opposing joint use of community hospital facilities.

Clinics (health centers and stations) ..... $382,100

Two seemingly unrelated terms (1) remoteness and (2) prevention are prime factors in the Indians' struggle to attain a health plateau equal to that experienced by the general population.

The most effective means to combat costly medical and hospital care is through bringing instruction in preventive health practices as close to the Indian beneficiaries' habitation as possible. In the field health clinics immunization, physical examinations, health conferences, and other preventive health services are provided. The clinic is also the focal point for home visitations, where preventive and curative care can more readily be promoted by physicians, public health nurses, and other health specialists.

Distance, lack of passable roads, and inclement weather limit the Indian's ability to procure health services at hospitals. It is in barren and isolated areas that the clinic is most generally situated to provide health services.

Thus preventive and other health services must be made readily available to the Indian beneficiary if the goal of the program is to be achieved. The field station and health center offer the best means of providing these services since

such facilities can be constructed in close proximity to the Indian. They also offer the most effective and practical means of preventing more costly hospital inpatient care.

An amount of $382,100 for clinics is requested in 1965. This amount will provide for the planning of one school health center and two health stations and the construction of one health center and three health stations. At many of these locations limited health services are currently provided from totally inadequate facilities not suited for such purposes. Also contained in the amount is $25,000 to equip the Toppenish (Wash.) Health Center for which construction funds were appropriated in fiscal year 1964.

The definition of health centers and health stations for which funds are requested follows:

1. Health center: A facility where health services are available at least 40 hours a week and where physicians' services are available either full time or on a regularly scheduled basis, and where other health staff is stationed to provide services such as dental, clinical, and public health nursing, sanitation, health education, and medical social services.

2. Health station: A facility where, although physicians' services may be regularly scheduled, physicians are not available full time, but one or more other health services are available on a regularly scheduled basis, such as dental, public health nursing, sanitation, health education, and medical social services. Such services are available from itinerant personnel headquartered in Public Health Service Indian hospitals and health centers or on a contractual basis.

The location, need, and estimated cost for each of the proposed facilities follows:

*Health centers*

Laguna, N. Mex. ..... $194,500

COST ESTIMATE

| | |
|---|---|
| Health center construction funds requested | $194,500 |
| Equipment funds proposed for inclusion in subsequent budget | 20,000 |
| Total estimated project cost | 214,500 |

Laguna is located 45 miles west of Albuquerque on Highway 66. It is the population center for the Laguna Reservation and close to the Acoma, Canoncito, and Alamo Reservations. Laguna people live in six villages besides Old Laguna. These are Casa Blanca, Encinal, Mesita, Paguate, Paraje, and Seama.

The present health facility located at Old Laguna serves a population of approximately 5,300 (reservations noted above). The facility is located in a remodeled nurses' house, which is too small to accommodate the current workload and provide necessary facilities for a comprehensive field health program.

Scheduled medical and preventive health clinics are held at the Laguna Health Center and several adjacent satellite health locations: Acomita, Paguate, Alamo, Encinal, and Canoncito. In 1962 more than 6,000 visits were recorded for medical, therapeutic, and preventive services. In 1963, visits exceeded 9,100, including about 5,800 at the satellite locations. The childhood diseases and diseases associated with substandard sanitary environment are among the leading notifiable diseases reported from the service unit. In 1963, a total of almost 3,700 immunizations were completed or administered as boosters.

Public health nurses provide services at the health center, hold scheduled field clinics and visit the homes. During the last 6 months of fiscal year 1962, public health nurses reported that prenatal services had increased; well-baby clinics had an attendance as high as 90 a month and response to all types of clinics was on the increase. Particular attention is given to the problems of maternal and child health, including services to schoolchildren. The BIA operates seven day schools in the Laguna service unit and a boarding school at Canoncito. The total enrollment was over 560 in 1961. Other children attend public and mission schools in adjacent communities.

A dental officer and dental assistant are stationed in the Laguna Health Center and hold regularly scheduled clinics approximately 70 percent of the year. From this focal point they conduct an itinerant schedule for the remainder of the year at the Acomita, Paguate, Alamo, Encinal, and Canoncito reservations and villages.

In 1962 one-third of the service unit population were treated and nearly 1,800 visits for dental services were recorded (primarily school-age children) by the Laguna dental team.

Funds are requested for the construction of a new health center with facilities and space for staff to conduct more adequately the field health activities (medical care, public health nursing, sanitation, dental, health education, maternal, and child health services) and to provide the comprehensive field health services needed by the Laguna service unit Indian beneficiaries. The proposed staff for the facility follows: medical officer (1), dental officer (1), Public Health nurses (3), clinic nurse (1), nurse assistant (1), community worker (1), sanitarian aids (3), maintenance (1), dental assistant (1), and clerical (2).

In addition an estimate of $20,000 will be included in the fiscal year 1966 budget request to provide for equipment for this new (replacement) health center.

This health center was included in the 1964 President's budget but could not be funded as a result of congressional action.

Fort Wingate, N. Mex ..... $25,000

COST ESTIMATE

| | |
|---|---|
| Planning funds requested | $25,000 |
| Construction funds proposed for inclusion in fiscal year 1966 budget | 415,000 |
| Equipment funds to be requested in fiscal year 1967 | 35,000 |
| Total estimated project cost | 475,000 |

Fort Wingate, located on U.S. Highway 66 approximately 16 miles east of Gallup, N. Mex., is the location of a 13-grade Bureau of Indian Affairs boarding school, with an enrollment of 1,000 students. By 1965 the enrollment is estimated to be doubled to 2,000 students.

There are no clinic services available other than yearly school physical exams, immunizations services and daily screening by a commuting school nurse from Manuelito Hall Dormitory in Gallup who refers students requiring physician's services to the Gallup Hospital approximately 20 miles away. Nonreferral and convalescing children are cared for in respective dormitories. Due to limited number of pediatric beds at the Gallup Hospital, students with common contagious diseases such as measles, chicken pox, and mumps are cared for in the dormitories. In school year 1962–63 visits to the nurse totaled 3,241. Additional visits were held to a minimum through dormitory instructional aids giving medication. In the same period 2,614 students were referred to Gallup for diagnosis and/or treatment. Some of these had subsequent followup visits.

Dental services are provided by a PHS dentist located in another building on the campus. The present clinic is overcrowded and no expansion is possible. In fiscal year 1963, 1,895 students were treated from the Fort Wingate and surrounding schools.

The new school health center will provide outpatient clinical services and allow a comprehensive school health program. In addition, provision will be made for 10 infirmary beds for short-term observation purposes. Illnesses requiring hospitalization will be referred to Gallup Hosptial.

Upon completion of the facility the expected annual workloads are estimated as follows:

| *Service* | *Annual Visits* |
|---|---|
| Physician | 4,000 |
| Nurse | 16,000 |
| Dental | 2,000 |

It is anticipated that there will be 1,500 days of infirmary care.

It is requested that $25,000 be provided to plan this school health center. Total estimated cost, including planning, is estimated to be $475,000.

Toppenish, Wash ..... $25,000

Funds are included to equip the Toppenish, Wash., Health Center.

Project construction funds are contained in the 1964 fiscal year appropriation.

HEALTH STATIONS

Cherry Creek, S. Dak ..... $41,200

Cherry Creek is a small Indian community on the Cheyenne River Reservation 40 miles south of Dupree, S. Dak., and 55 miles southwest of Eagle Butte, S. Dak. There is an estimated Indian population of 280 inhabitants.

It is the site of a Bureau of Indian Affairs day school and is served only by one substandard road leading south from Dupree.

Clinics are held on a weekly basis in an inadequate Bureau of Indian Affairs house and are conducted by staff from the PHS Indian Hospital at Eagle Butte. The examining room is inadequate. There is no nurses' work space and very little waiting room space in the makeshift facility.

During fiscal year 1963 there were over 1,100 visits to the clinic and upon completion of the new station an estimated 1,800 visits is anticipated at general medical and preventive health clinics and conferences.

An extensive program of home visiting by public health nurses and conferences is planned. The conferences will include well child, preschool, prenatal, and postpartum public health services. These conferences will be held, for the most part, in conjunction with the clinic while the physician is present. A nutritionist is to be added to the staff of the service unit and a program of community nutrition education will be inaugurated. In addition, demonstrations and group instruction will be scheduled during patient clinics.

Funds in amount of $41,200 are requested for the construction of Cherry Creek Health Station.

Kaibeto, Ariz ..... $7,000

PROJECT COST

| | |
|---|---|
| Planning funds requested | $7,000 |
| Construction funds to be requested in fiscal year 1966 budget | 84,000 |
| Equipment funds to be requested in fiscal year 1967 budget | 6,000 |
| Total estimated project cost | 97,000 |

Kaibeto is a remote community located on the Navajo Reservation 48 miles north of Tuba City, Ariz., and 26 air miles south of the Utah State border. It has an estimated local population of 675 and adjacent communities with a population of about 1,800. At present the Bureau of Indian Affairs operates a boarding school with an enrollment of 270 students. Upon completion of a second BIA boarding school (expected date of completion January 1966) the total school enrollment anticipated for the combined Kaibeto schools will approximate 930 students.

Clinics (generally once monthly during school term), formerly held in the chapter house are currently provided in the school clinic room. In fiscal year 1963 the clinic attendance averaged 37 a month. An estimated 50 visits per clinic day exclusive of school children and special preventive clinics is anticipated for a beneficiary population of 2,925.

In lieu of constructing a school clinic and a separate field health station, it is considered more economical and of greater benefit to the beneficiaries involved to combine and conduct these health services in one facility. The project now proposed is a modified field health station that will provide space for the medical program to be conducted at this location.

The program will consist of daily school health nursing services, at least weekly medical clinics for the two schools, the local population and that of surrounding communities; and full-time dental coverage. Special preventive clinics and group health conferences will be held as needed.

Except for the school nursing and dental staffs, personnel from the Tuba City Hospital will serve the station.

It is requested that funds in the amount of $7,000 be provided to plan a health station in coordination with the school construction project. Total estimated project cost, including planning, is estimated to be $97,000.

Lower Greasewood, Ariz ..... $7,000

PROJECT COST

| | |
|---|---|
| Planning funds requested | $7,000 |
| Construction funds to be requested in fiscal year 1966 budget | 84,000 |
| Equipment funds to be requested in fiscal year 1967 | 6,000 |
| Total estimated project cost | 97,000 |

Greasewood is an Indian population center and location of a new Bureau of Indian Affairs 660 pupil boarding school. It is located 59 miles southwest of Fort Defiance, Ariz., on the Navajo Reservation. In the near future it is expected that an improved east-west road will join Klagetoh, Greasewood, Indian Wells, Dilkon, and Leupp and open up vast areas and population now served by poor, often impassable roads.

Weekly clinics are held in a small mission that is most inadequate. The weekly clinic attendance averages between 80 and 100 patients.

The new health station will provide field health services for 1,700 indigenous Indians and 2,000 students in and near Greasewood.

In lieu of constructing a school clinic and a separate field health station, it is considered more economical and of greater benefit to the beneficiaries involved to combine and conduct these health services in one facility. The project now proposed is a modified field health station that will provide space for the medical program to be conducted at this location.

General medical and preventive health clinics will be held weekly. Full-time nursing and dental services will be provided for students. Special preventive health clinics and group health conferences will be held as needed. Ninety visits per clinic day are anticipated. Except for nursing and dental services for students, personnel from Fort Defiance Hospital will provide the health services.

It is requested that funds in amount of $7,000 be provided to plan this health station. Total estimated project cost, including planning, is estimated to be $97,000.

Wolf Point, Mont ..... $41,200

Wolf Point, in Roosevelt County in the northeastern part of Montana, is located on Highway No. 2, 22 miles west of Poplar, Mont. The majority of the Indian beneficiaries in the Fort Peck service unit reside in Roosevelt County.

At the present time a public health nurse carries out a generalized public health nursing program of home visiting, immunization, and other preventive health services. Weekly nursing conferences are currently being held in an Indian church. Dental services for children are provided through contractual arrangements.

In the new station, general medical and preventive clinics will be held weekly. Special preventive clinics (immunization, prenatal, postnatal, well baby, diabetic, and tuberculosis) will be held as needed. Group sessions on health education will be held in the evenings. It is estimated that there will be 4,800 clinic visits annually.

Funds in amount of $41,200 are requested for construction of this station.

Whitehorse, S. Dak ..... $41,200

Whitehorse, a population and BIA day school center on the Cheyenne River Reservation 40 miles from Mobridge, has no public transportation or improved roads leading directly to it. The beneficiary population approximates 350.

Regularly scheduled field clinics are held at Whitehorse once or twice a month by the staff from the PHS Eagle Butte Indian hospital. In addition, clinics are held occasionally at the school. A total of 455 visits were reported for 1963. These clinics are now held in an Indian chapter house with inadequate space and facilities.

To provide adequate facilities in which to conduct a field health program, funds are requested for the construction of a modern health station for the isolated Indian population around Whitehorse.

This station was included in the President's budget for 1964 but could not be funded as a result of congressional action.

Total 1965 request for clinics (health centers and stations) ..... $382,100
Total 1965 request for hospitals and clinics ..... 2,347,800

*Personnel quarters, 1965 request, $1,430,500*

The markedly divergent facilities of the Indian health program are in remote, isolated areas. Absence of adequate, available housing compounds the critical problem of achieving the orderly and effective recruitment and retention of qualified personnel.

When the Public Health Service assumed responsibility for the Indian health program, approximately 1,900 housing units were transferred from the Bureau of Indian Affairs. Some were converted apartments and buildings with non-housekeeping rooms. Many of these units were substandard and did not meet criteria as outlined in Budget Circular A–18 governing Federal housing.

To implement an accelerated hospital and field health program in 1956, 326 surplus prefabricated housing units and trailers were acquired. These units provided a partial solution to emergency housing problems and helped sustain the crash health program. However, they were never intended, not are they adequate, for long-term use. Including 126 units authorized in hospitals and

clinics construction projects, 571 permanent units have been authorized through 1964 (excluding the 326 temporary units and 14 mobile trailers). Fifty-six units are requested for 1965; 52 of this request represent replacement of temporary or inadequate quarters and 4 represent new quarters. The extent to which additional quarters and replacements will be required in the future is under constant review.

Funds in amount of $12,000 to provide ranges and refrigerators for the 1964 program are also included.

*Distribution of quarters by location, fiscal year 1965*

| Location | Type | Number of units | Estimated cost |
|---|---|---|---|
| Pine Ridge, S. Dak. | 1 bedroom | 4 | $62,600 |
| Fort Yates, N. Dak. | do | 4 | 62,600 |
| Chinle, Ariz. | do | 6 | 74,040 |
| Fort Defiance, Ariz. | do | 18 | 222,116 |
| Kotzebue, Alaska [1] | Single rooms (connecting baths) | 10 | 136,644 |
| Bethel, Alaska [1] | Efficiency | 8 | 361,500 |
| | 3 bedrooms | 2 | 324,000 |
| | 2 bedrooms | 2 | |
| Tanana, Alaska [1] | 3 bedrooms | 1 | 150,000 |
| | 2 bedrooms | 1 | |
| Subtotal, 1965 program | | 56 | 1,393,500 |
| Ranges, refrigerators, washers, and dryers other than State of Alaska. | | | 25,000 |
| Total 1965 program | | | 1,418,500 |
| Ranges and refrigerators, 1964 program | | | 12,000 |
| Total request for 1965 | | | 1,430,500 |

[1] Includes furnishings, ranges, refrigerators, washers, and dryers in accordance with current policy regarding furnishings for State of Alaska.

*Alterations, 1965 request, $864,700*

The projects which follow represent existing Indian health facilities that require alterations and/or additions to maintain and provide optimum utilization.

ABERDEEN AREA

Winnebago Hospital, Winnebago, Nebr. ..... $31,000

CONSTRUCTION FUNDS FOR STORAGE BUILDING AND MAINTENANCE SHOP

Existing storage space is totally inadequate. At present, medical supplies are located in vacant Camp Pickett home and storage is confined to an old barn approximately 1½ miles from the hospital. The project will provide additional space for general hospital supplies, pharmacy storage, and a maintenance shop for service to complement the hospital plant operation. Currently there are no maintenance shop facilities available.

Sisseton Hospital, Sisseton, S. Dak. ..... $12,000

REPLACE HEATING BOILER

Boiler is beyond repair. Foundation and combustion chamber need replacing. This is one of two original installations, the other having been replaced in 1957.

Yankton Hospital, Wagner, S. Dak. ..... $9,000

STANDBY GENERATOR AND ELECTRICAL SYSTEM IMPROVEMENT

A conductive floor has been installed in the operating room but the original electrical system is still in use. To complement revised electrical system, it is necessary to provide for an emergency electrical generating unit.

Total, Aberdeen area ..... $52,000

ALBUQUERQUE AREA

| | |
|---|---|
| Gallup Hospital, Gallup, N. Mex | $308,700 |
| Construction funds | 295,700 |
| Equipment funds, 1964 program | 13,000 |
| Total 1965 request | 308,700 |

Construction funds of $295,700 for (1) field health activities, demonstration areas, and auditorium; (2) conversion of reassigned space in hospital; and (3) storage and maintenance shops space. Funds of $30,000 were appropriated in fiscal year 1964 for planning this project.

In order to make maximum use of the new 200-bed hospital at Gallup, N. Mex., as a training center for Division of Indian Health personnel and a focal point for the field health activities in the immediate vicinity and to provide for full functional needs in the operation of the hospital, additional facilities and alterations to the existing facility are required.

CONVERTING SPACE REASSIGNED IN HOSPITAL

Space in the hospital originally designed for field health offices, demonstration, conference, classrooms, and clinical referral library will be provided in the new addition. The space freed will be used for doctors' offices, additional laboratory space, additional outpatient waiting area, and examination rooms which were not fully provided for in the hospital as constructed.

SPACE FOR FIELD HEALTH ACTIVITIES AND AUDITORIUM

During the interval while the hospital was being constructed the Gallup Clinic operation including outpatient medical care, services and field program developed additional requirements for space that aggravated the inadequate space situation and cannot be accommodated in the new facility. A total of 8 people originally planned for field health has now been increased to 14.

There is no auditorium or assembly room of any type in the hospital. An auditorium seating 125 people will be required to accommodate assemblies of various groups—patients, staff, trainees, visitors, clinical personnel, administrative conferences, demonstration, and other health and hospital activities. It is, therefore, proposed to add space sufficient to accommodate these functional uses in a building or wing adjacent to the present hospital building.

ADDITIONAL STORAGE AND MAINTENANCE SHOPS

Experience has indicated the necessity for additional storage space and provision for maintenance shops.

EQUIPMENT REQUIREMENTS

Funds in the amount of $13,000 are included for equipment requirements not provided in the 1964 appropriation. This project involved construction of training facilities and quarters.

| | |
|---|---|
| Tuba City Hospital, Tuba City, Ariz | $180,000 |

PLANNING FUNDS FOR ADDITIONS AND ALTERATIONS

| | |
|---|---|
| Cost estimate: | |
| Feasibility funds appropriated fiscal year 1964 | $20,000 |
| Planning funds requested fiscal year 1965 | 180,000 |
| Construction funds to be requested fiscal year 1966 | 2,625,000 |
| Equipment funds to be requested fiscal year 1967 | 225,000 |
| Total, estimated project cost | 3,050,000 |

PROPOSED PROJECT

The proposed project involves modernization and expansion of the existing 75-bed general, medical, and surgical hospital by (1) 50 additional beds, and (2) the functional rearrangement and proportional expansion of the supportive hospital elements.

EXISTING FACILITY

The existing hospital was opened in 1954 as a 75-bed general, medical, and surgical facility. This facility was not designed to meet the tremendous growth in population which has occurred in the last 8 years, the needed expansion in outpatient medical and dental services, comprehensive public health and laboratory services required, and the need for more comprehensive inpatient and outpatient services. Services and activities have more than doubled since the transfer of the program from Bureau of Indian Affairs to Public Health Service in 1955.

The rapid increase in activity has caused an extreme shortage of space and crowding in practically all functional areas—outpatient clinics, field health staff offices and adjunct space, administrative and professional offices, pharmacy, laboratory, X-ray, dining room, storage and supply areas.

For the past 3 years the hospital has been operating at 90 to 100 percent capacity. There is no flexibility in bed space arrangement to assure safe and adequate organization of the medical, surgical, and obstetrical services to meet the diversified character of the inpatient load (infants, young children, and male and female adults). With the limited space, it has not been possible to meet the steadily increasing need for specialty services, nor the overwhelming need for more preventive health services. Lack of space and poor functional arrangement have prevented a coordinated health program which would integrate the hospital services with the multiplicity of public health activities and services in the hospital and the field at numerous schools and satellite locations.

POPULATION SERVED

The 1960 census enumerated approximately 11,700 Navajos residing in the Tuba City land management (BIA) districts; but within the hospital service area are the Navajos around Kayenta and adjacent areas to the north and east, to the Utah border. About 3,000 are in these areas according to the 1960 census, for a total of nearly 15,000. It is anticipated that the hospital service population will reach 17,000 within the next few years. The accelerated school construction program and expanded BIA school enrollment is a factor as well as the continuing high birth rate.

The Navajo population is estimated to be increasing at an average rate of 2.5 percent a year. Because of mobility and migration, different service units are experiencing different rates of increase in population, ranging from 2.2 to 3 percent.

UTILIZATION, 1960–63

The following table includes basic information on the utilization of the hospital during the period indicated:

| | 1960 | 1961 | 1962 | 1963 |
|---|---|---|---|---|
| Admissions | 2,501 | 2,626 | 2,503 | 2,374 |
| ADPL | 71 | 70 | 72 | 67 |
| Births | 461 | 521 | 475 | 512 |
| Average length of stay | 10.6 | 9.1 | 10.1 | 10.5 |
| Outpatient medical visits facility | 27,029 | 28,385 | 35,768 | 34,412 |
| Field school clinics | 2,007 | 2,840 | (1) | 5,007 |
| Dental | 4,307 | 4,108 | 6,174 | 4,331 |

[1] Not available.

In developing the detailed planning program, primary emphasis will be given to the facilities and staff required for the necessary extension of health protective services, outside of the hospital facility in this area of the Navajo. The services in the outlying locations will be integrated with the hospital inpatient and outpatient program.

PROJECT PROPOSAL AND ANTICIPATED WORKLOADS

The plan involves an addition of 50 beds (for a total of 125 beds) including provision of sufficient isolation beds for care of infectious cases (tuberculosis and other conditions requiring isolation).

The following shows the bed distribution and estimated average daily census by major clinical service, after construction:

| | Beds | ADPL |
|---|---|---|
| Total, excluding newborn bassinets | 125 | 105 |
| Medical | 27 | 22 |
| Surgical | 20 | 17 |
| Pediatric | 60 | 51 |
| Obstetrics | 18 | 15 |
| Bassinets | 24 | |

Upon completion of the additional 50 beds, the expected inpatient and outpatient workload is estimated to be:

| | |
|---|---|
| Admissions | 3,825 |
| Births | 680 |
| Average length of stay | 10 |
| ADPL | 105 |
| Outpatient medical visits, facility | 42,000 |
| Dental visits | 8,600 |

The number of admissions and the ADPL reflect an expected hospital admission rate of 225 per 1,000 population, with an average stay of 10 days. The proportion of pediatric patients represents about half of the total load. An increased field health program (case finding, home visiting) will result in an increase in outpatient visits and also referrals for hospitalization.

COMMUNITY FACILITIES AND REFERRAL FACILITIES

The Arizona State hospital plan, 1963 lists only two non-PHS Indian hospitals in the area. These are at Page, Ariz. (25 acceptable beds), 79 miles north of Tuba City on the Utah border and Sage Memorial Hospital, Ganado Mission (47 acceptable beds under construction), 110 miles east of Tuba City and outside of the drawing area of the Tuba City service unit.

Referral of cases requiring specialized care are to the Indian hospital in Gallup, N. Mex., about 200 miles away. Specialized laboratory services and consultant services are limited and must be obtained under contract from points over 200 miles away.

The distinct health needs of the Navajo, the isolation of the Tuba City service unit, the level of acculturation, cultural patterns, and level of understanding of modern medicine require the operation of direct Federal services, through a coordinated comprehensive preventive, curative, and restorative health program.

Communication through interpreters is necessary, since 40 percent do not read or speak English. The emphasis for each of the health program activities is continuing assistance to the Navajo to increase their understanding of health problems and means of protecting themselves and their communities against controllable diseases, and potential benefits of the hospital and field health programs.

The unique health needs of these people are best met by the PHS Indian hospital and satellite field programs, with active tribal participation.

Pinon Health Station, Pinon, Ariz ..... $29,000

EXPANSION OF HEALTH STATION TO PROVIDE DENTAL SERVICES

The Pinon Health Station, constructed in 1958, provides field health services for 5,320 Navajo Public Health Service beneficiaries and is located 47 miles west of Chinle and 37 miles north of Keams Canyon.

Dental space originally provided in the station has proven entirely unsatisfactory. Currently, dental clinics are held three times weekly in an inadequate Camp Pickett home. Dental visits total 2,000 visits a year and include service to some 2,000 students in the district served by Pinon.

An addition to the Pinon Health Station is proposed to provide for an expanded dental program.

Fort Defiance Hospital, Fort Defiance, Ariz ..... $30,000

AIR-CONDITION SURGERY

The surgical room in the Fort Defiance Hospital is not air conditioned causing undesirable conditions for both patient and physician. In order to comply with adequate standards it is proposed to completely air-condition and provide humidity control for the surgery room.

Shiprock Hospital, Shiprock, N. Mex..... $110,000

(1) Air-condition patients' rooms $80,000; (2) install evaporative coolers in dormitory, lounge and 24 1-bedroom apartments $21,000; and (3) install evaporative coolers in 24 family quarters $9,000.

1. No air conditioning is provided in the patients' rooms. When outside temperatures are high, very often over 90° F., the interior temperatures become approximately the same by early afternoon. Due to stored heat in the masonry and concrete parts of the building, interior temperatures remain unbearably high until late in the evening. Attempts to lower temperatures in patients' rooms by means of floor fans blowing air from the air conditioned surgical corridor have not been successful. It is proposed to air-condition patients' rooms which were not included with other air conditioned areas in the hospital.

2–3. Quarters are unbearably hot during the summer months due to exposed location with no shade. In July and August 1961 a total of 475 hours were in excess of 93° temperature Fahrenheit. The estimate provides funds to install evaporative coolers in the dormitory, lounge, and quarters.

Proposed air conditioning in the hospital and quarters buildings meets Bureau of Budget criteria.

Total, Albuquerque area..... $657,700

BILLINGS AREA

Intermountain Indian School Health Center, Brigham City, Utah..... $15,000

ALTER SPACE TO PROVIDE FOR PERIODONTIST

Space is required to provide for a periodontal specialist to assist in planning' developing, and directing a divisionwide program to combat periodontal disease.

It is proposed to locate the office in building No. 61 thereby allowing accessibility to the dental waiting room.

Total, Billings area..... $15,000

PHOENIX AREA

Sells Hospital, Sells, Ariz..... $12,000

PLANNING FUNDS FOR ALTERATIONS

Project cost:

| | |
|---|---|
| Planning funds requested in fiscal year 1965 | $12,000 |
| Construction funds to be requested in fiscal year 1966 | 128,000 |
| Total, estimated project cost | 140,000 |

CONVERTING SPACE IN HOSPITAL TO FIELD HEALTH

Conversion of the general storage and subsistence storage space, 915 square feet, in the hospital to provide necessary offices for field health personnel.

The present space available for the public health nurses in the small Public Health Service Indian Health Center building located about 1 mile from the hospital is entirely inadequate. This physical separation impedes the accomplishment of a coordinated health program for the Papago Indian beneficiaries.

ADDITIONAL STORAGE AND MAINTENANCE SHOPS

Experience demonstrates the need for additional storage space and maintenance shop facilities. The space provided in the original construction for the storage of medical and general hospital supplies was not adequate. Garage facilities located several hundred feet from the hospital have been utilized to supplement the storage area. This storage operation is inefficient and costly. The control of supplies is extremely difficult. Accordingly, it is proposed to provide an addition of 3,400 square feet for storage.

Due to the isolated location and lack of service organizations in this area, it is considered essential to provide maintenance resources to complement the hospital operation. Therefore, maintenance shop space of 880 square feet is included in the proposed addition.

CONVERTING FIELD HEALTH CENTER TO QUARTERS

The old health center building will be utilized after conversion to a three-bedroom unit to reduce the present housing shortage for hospital staff.

Total, Phoenix area ..... $12,000

PORTLAND AREA

Chemawa School Health Center, Chemawa, Oreg. ..... $8,000

*Install automatic sprinkler system, $4,500*

The building is a two-story building constructed in 1906. Approximately 50 percent of the first floor is used for ward space for patients. To overcome existing fire hazards, it is proposed to install an automatic sprinkler system in all rooms and corridors of the basement and first and second floors.

*Construct garage and maintenance shop, $3,500*

As a result of the lack of space, heavy equipment is exposed to the weather. One ambulance type vehicle is unshielded the year round and becomes immobile. It is necessary to provide maintenance shop services for operation of the school infirmary. It is proposed to construct a one-stall garage and maintenance shop.

Colville Health Center, Nespelem, Wash ..... $8,000

REROOFING OF THREE BUILDINGS

The Health Center Building No. 21 and quarters buildings No. 20 and No. 22 were constructed in 1935. The roofs, due to age, have deteriorated to the point where they are unsafe and uneconomical to repair. It is proposed to install new roofs on the three buildings.

Total, Portland area ..... $16,000

ALASKA AREA

Tanana Hospital, Tanana, Alaska ..... $87,000

*Construct sewage treatment plant, $57,000*

At the present time only a septic tank is provided for all the hospital facilities and the adjacent school. The septic tank effluent is discharged into the river less than 800 feet upstream from the Federal Aviation Agency housing area. Natives habitually locate fish traps for subsistence fishing just downstream from the FAA housing area. It is proposed to construct a complete sewage treatment plant for the facilities in the hospital complex.

*Construct addition to water treatment plant, $30,000*

Present water storage capacity of 15,000 usable gallons in one reservoir is not adequate for normal reserve or for firefighting and does not permit necessary maintenance and cleaning of tanks without interruption of water service to the station. It is proposed to construct an addition to the water treatment plant to provide an additional 15,000-gallon water storage reservoir and a chemical storage area.

Kotzebue Hospital, Kotzebue, Alaska ..... $25,000

INSTALL FIRE HYDRANTS AND SUPPLY LINE

The hospital complex does not have any exterior fire hose connections. The only water available is through a 1½-inch line from a hose cabinet in the new buildings. The community fire department in Kotzebue does not have enough opera-

tive equipment. It is proposed to install four fire hydrants linked to a motor powered fire pump with a drainage sump.

| | |
|---|---|
| Total, Alaska area | $112,000 |
| Total 1965 request for alterations | 864,700 |

*Construction of Indian sanitation facilities, 1965 request, $4 million*

This cooperative Tribal-Public Health Service activity, designed to correct gross deficiencies in Indian and Alaska native sanitation facilities, is authorized under Public Law 86–121. The gross environmental deficiencies that exist are in a large measure responsible for the high incidence of preventable diseases that prevail among Indians. Provision of basic sanitary facilities for Indian homes and communities is essential in the prevention of diseases and is a basic element in the improvement of health services to the Indians. Following is a list of specific examples of health problems directly related to the lack of sanitary facilities:

1. Gastritis, enteritis, etc., rank first among reported notifiable diseases on Indian reservations; incidence rates for amebic and bacillary dysentery are more than 35 times higher than the rate in the general population.

2. The Indian infant death rate is about twice that in the general population, and for infants who have returned to their home environment after hospital birth and particularly for infants 1 month through 11 months of age, the death rate is more than three times that of comparable age groups in the general population, a condition in large part associated with the lack of sanitation facilities in the Indian home and extremely crowded living conditions.

3. Twenty percent of all reported Indian deaths in a year are infant deaths (under 1 year of age) compared with 6 percent for this age group in the general population.

4. Approximately 20 percent of the patients discharged from hospitals were treated for infectious diseases most of which are associated with insanitary conditions and the overcrowded home environment.

Contributing to these health problems is the widespread scarcity of water among Indians and Alaska natives for even elemental household purposes. Thousands of Indians on many reservations haul water in a primitive manner for distances of a mile or more. In such instances, use of water for domestic purposes is as low as 1 to 3 gallon per capita per day as compared to five times this amount for the poorest rural families in the non-Indian population. A charge of $1 to $3 per barrel for water delivered to the Indian home is not uncommon. The source of domestic water supply for a majority of homes is unsafe. Contaminated streams, irrigation ditches, stock ponds, and unprotected wells and springs are often the only available supply.

The lack of adequate facilities for the disposal of human and other household wastes, both liquid and solid also contributes to the health problem of the Indians and Alaska natives. The absence of these facilities result in (1) spread of microorganisms responsible for diarrheas, and dysenteries, (2) insect and rodent infestations both in Indian homes and communities, (3) contamination of foods and domestic water supplies, and, (4) general nuisance conditions.

Public Law 86–121 enables the Public Health Service to help alleviate the substandard environmental conditions that have been described. This law authorizes construction of domestic water supplies, waste disposal facilities, and other sanitation facilities for Indian homes, communities, and lands. The Public Health Service administers the program in consultation with Indian tribes, Alaska native groups, and State and local health agencies. Participation by the Indians in project execution is stressed and tribes are assisted in assuming responsibility for continued operation and maintenance of completed community sanitation facilities. Parallel education and training activities are conducted to assure utilization, protection and maintenance of household sanitation facilities. Projects for Indian beneficiaries include one or more of the following features: water—source development, treatment, storage facility, distribution system; waste (liquid and solid)—collection system, sewage treatment, disposal facility; household appurtenances—sanitary pit privy, or flush toilet, kitchen sink connecting plumbing; drainage—facilities for control of insects, systems to permit subsurface waste disposal.

In the 4 years this program has been underway 169 construction and 71 emergency and study projects have been authorized with funds appropriated through 1963 for construction of Indian sanitation facilities. As of November 30, 1963, 176 of these projects have been completed or essentially completed, 63 are in progress, and the remaining 1 is in the final stage of negotiation of agreement with

the tribe. In 1963 an additional 30 projects were initiated with $3,195,000 made available under the public works acceleration program. Of these 30, 5 are essentially completed and the remainder are under construction. This supplemental allotment of funds placed the program at a $7.2 million operating level in 1963.

Upon completion of all work funded through 1963, safe domestic water supply and sanitary waste disposal facilities will have been made available to more than 16,000 homes in 206 different geographical locations.

In 1964 $3,937,000 was appropriated for 37 sanitation facilities construction projects. An additional sum of $1,800,000 was made available under the public works acceleration program for 12 projects. Together, these funds placed the program operating level at $5.7 million in 1964. This will enable the provision of basic sanitation facilities for more than 4,500 Indian and Alaska native families in 48 different geographical locations.

It is noted that the results of these efforts have produced an increasing awareness of the Indian people to the advantages of adequate sanitation facilities. This has been demonstrated by the many requests from the Indians for assistance under this program and by the substantial contributions of labor, money, and materials made by the Indians to construction projects. Indian governing bodies have shown a willingness to adopt the necessary measures which are required for continued operation and maintenance of completed facilities. These include appointment of responsible maintenance individuals, establishment of water and sewer charges, and adoption of sanitary regulations. Each of these actions embrace new concepts in the Indian methods of government. Despite the slow but steady progress that has been made, the backlog of unbudgeted identifiable projects continues to mount.

The $4 million request for 1965 will permit the construction of 38 projects at an estimated cost of $3,764,000. These urgently needed projects are on 23 Indian reservations and in approximately 15 communities in the States of Oklahoma, California, and Alaska. They will meet needs in areas where (1) essential sanitation facilities are lacking or in need of major rehabilitation, (2) rates of preventable diseases attributable to gross environmental sanitation deficiencies are high, (3) work is feasible and most nearly ready to be undertaken from an engineering and economic standpoint, (4) ability and willingness of Indians to assume responsibility for maintenance and operation have been indicated, and (5) willingness of Indians to contribute to and participate in the work has been shown. The request includes $80,000 to assist Indian communities in the connection of water and sewerage services to public housing sites.

The request also includes $156,000 for investigations and planning funds for urgently needed construction projects on which additional technical information is necessary before a solution can be recommended; and for correction of emergency problems related to Indian sanitation facilities such as occur from severe drought conditions, floods, failure of well casings, and pumping equipment, and for other unforeseen conditions which may require provision of materials, supplies, and equipment for completing the construction or repair of sanitary facilities. There follows a list of projects proposed for fiscal year 1965.

*Sanitation facilities projects*

| Reservation | Community | State | Project | Estimate |
|---|---|---|---|---|
| ABERDEEN AREA | | | | |
| Rosebud | Horse Creek and Swift Bear | South Dakota | Individual water and waste | $53,000 |
| Bois Fort | Nett Lake | Minnesota | Community water and sewerage | 212,000 |
| Standing Rock | Kenel | South Dakota | do | 80,000 |
| Red Lake | Little Rock Area | Minnesota | Individual water and waste | 95,000 |
| ALBUQUERQUE AREA | | | | |
| San Juan | San Juan Pueblo | New Mexico | Community water and sewerage | 162,000 |
| Acoma | McCarty's Village | do | do | 200,000 |
| Navajo | Scattered locations | Arizona and New Mexico | Development of communal shallow wells and springs. | 200,000 |
| Do | do | do | Individual home water storage | 30,000 |
| Do | Teecnospos | Arizona | Community water and sewerage | 100,000 |
| Do | Ganado | do | do | 100,000 |
| Do | Toadlena | New Mexico | do | 80,000 |
| Do | Scattered locations | Arizona and New Mexico | Individual water and waste | 100,000 |
| BILLINGS AREA | | | | |
| Fort Belknap | Beaver Creek | Montana | do | 45,000 |
| Blackfeet | Babb-St. Marys | do | do | 139,000 |
| Fort Peck | Wolf Point | do | Community and individual water and individual waste. | 200,000 |
| Crow | Pryor | do | do | 95,000 |
| OKLAHOMA CITY AREA | | | | |
| Cherokee | Big Cove-Rural | North Carolina | Individual and communal water and individual waste. | 100,000 |

| | | | | |
|---|---|---|---|---|
| Cherokee County | Southwest district | Oklahoma | Individual water and waste | 77,000 |
| McCurtain County | Idabel district | do | do | 34,000 |
| Adair County | West Central district | do | do | 70,000 |
| Caddo County | Fort Cobb-Anadarko Y Districts | do | do | 75,000 |
| Okmulgee County | Okmulgee District | do | do | 70,000 |
| Delaware County | Eucha District | do | do | 66,000 |
| PHOENIX AREA | | | | |
| Salt River | Salt River (phase I) | Arizona | Community water and individual waste | 90,000 |
| Papago | 5 villages | do | do | 100,000 |
| Rancherias | (To be selected) | California | Individual waste | 100,000 |
| Hopi | New Orabi | Arizona | Community water and sewerage | 95,000 |
| San Carlos | Seven Mile Wash | do | Community water and individual waste | 20,000 |
| Gila River (Pima) | Casa Blanca | do | do | 100,000 |
| PORTLAND AREA | | | | |
| Fort Hall | Bannock-Lincoln Creek Districts | Idaho | Individual water and waste | 119,000 |
| Colville | Okanogan Valley-Kartar-Disaultel Areas | Washington | do | 84,000 |
| Warm Springs | Rural Areas | Oregon | do | 110,000 |
| Quinault | Queets Community | Washington | Community water and individual waste | 32,000 |
| Muckleshoot | Auburn community | do | do | 15,000 |
| Yakima | Toppenish district | do | Individual water and waste | 66,000 |
| ANCHORAGE AREA | | | | |
| Alaska | Hoonah | Alaska | Community water and sewerage | 200,000 |
| Do | Norton Sound group (4 villages) | do | Communal water and individual waste | 135,000 |
| Do | Seward Peninsula group (3 villages) | do | do | 115,000 |
| All areas—Assistance to Indian communities in the connection of water and sewerage services to public housing sites | | | | 80,000 |
| Investigations, emergency works, supplies, and equipment | | | | 156,000 |
| Total, 1965 request | | | | 4,000,000 |

*Analysis of continuing projects*

| | Planning or feasibility funds for projects approved prior to 1965 | | | 1965 request | | | |
|---|---|---|---|---|---|---|---|
| | Appropriated 1962 | Appropriated 1963 | Appropriated 1964 | Funds for previously approved projects | Planning or feasibility funds for new projects | Funds for new construction projects | Total |
| Hospitals and clinics: | | | | | | | |
| Phoenix Medical Center | [1] $350,000 | | | | | | |
| Lawton Hospital | | $115,000 | | $1,965,700 | | | $1,965,700 |
| Fort Wingate School Health Center | | | | | [1] $25,000 | | 25,000 |
| Toppenish Health Center equipment | | | | [2] 25,000 | | | 25,000 |
| Kaibeto Health Station | | | | | [1] 7,000 | | 7,000 |
| Lower Greasewood Health Station | | | | | [1] 7,000 | | 7,000 |
| Laguna Health Center | | | | | | $194,500 | 194,500 |
| Health stations at Whitehorse, Cherry Creek, and Wolf Point | | | | | | 123,600 | 123,600 |
| Total, hospitals and clinics | | | | | | | 2,347,800 |
| Personnel quarters: | | | | | | | |
| Construction of 56 units | | | | | | 1,393,500 | 1,393,500 |
| Ranges, refrigerators, washer-dryers, 1965 program | | | | | | 25,000 | 25,000 |
| Ranges and refrigerators, 1964 program | | | | [2] 12,000 | | | 12,000 |
| Total, personnel quarters | | | | | | | 1,430,500 |
| Alterations: | | | | | | | |
| Talihina Hospital | | [1] 13,000 | | | | | |
| Gallup Hospital: | | | | | | | |
| Construction 1965 program | | | $30,000 | 295,700 | | | 295,700 |
| Equipment for trainee quarters, 1964 program | | | | [2] 13,000 | | | 13,000 |
| Tuba City Hospital | | | 20,000 | | [1] 180,000 | | 180,000 |
| Sells Hospital | | | | | [1] 12,000 | | 12,000 |
| Other alterations, 1965 program | | | | | | 364,000 | 364,000 |
| Total, alterations | | | | | | | 864,700 |
| Sanitation facilities: | | | | | | | |
| Construction of 38 projects | | | | | | 4,000,000 | 4,000,000 |
| Total, 1965 program | | | | | | | 8,643,000 |

[1] Construction funds to be requested after 1965.
[2] Funds for equipment requirements. Construction funds appropriated in 1964.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $7,460,682 | $12,717,926 | $7,993,000 | −$4,724,926 |
| Unobligated balance brought forward | −5,765,108 | −7,639,426 | −271,500 | 7,367,926 |
| Unobligated balance carried forward | 7,639,426 | 271,500 | 921,500 | 650,000 |
| Appropriation | 9,335,000 | 5,350,000 | 8,643,000 | +3,293,000 |
| Obligations by objects: | | | | |
| 11 Personnel compensation | 522,512 | 680,000 | 685,000 | +5,000 |
| 12 Personnel benefits | 22,316 | 35,000 | 35,000 | |
| 21 Travel and transportation of persons | 52,044 | 77,000 | 67,000 | −10,000 |
| 22 Transportation of things | 67,145 | 63,000 | 60,000 | −3,000 |
| 23 Rent, communications, and utilities | 30,878 | 29,000 | 30,000 | +1,000 |
| 24 Printing and reproduction | 10,455 | 10,000 | 10,000 | |
| 25 Other services | 1,846,591 | 2,059,000 | 1,746,700 | −312,300 |
| 26 Supplies and materials | 245,683 | 270,000 | 195,000 | −75,000 |
| 31 Equipment | 261,720 | 591,000 | 194,000 | −397,000 |
| 32 Lands and structures | 4,236,714 | 8,871,599 | 4,970,300 | −3,901,299 |
| 41 Grants, subsidies, and contribution | 164,624 | 32,327 | | −32,327 |
| Total obligations | 7,460,682 | 12,717,926 | 7,993,000 | −4,724,926 |

HEALTH CENTER AT MCLAUGHLIN, S. DAK.

Chairman HAYDEN. Is the health center at McLaughlin, S. Dak., in operation yet?

Dr. WAGNER. No, sir. It will be in operation soon. We were delayed because of a problem of water supply and sewerage, but this has now been solved, and we hope to have the facility in operation very shortly.

HOSPITAL AT LAWTON, OKLA.

Chairman HAYDEN. In fiscal year 1963, $115,000 was provided for planning a general surgical and medical hospital at Lawton, Okla. Has this work been completed, and, if so, when do you expect construction to start?

Dr. WAGNER. We are in the process of planning and this is well underway, sir. We feel that we will have no trouble obligating the construction funds next year.

MEDICAL CENTER IN PHOENIX, ARIZ.

Chairman HAYDEN. In fiscal year 1962, the Division of Indian Health was given $350,000 to plan a medical center in Phoenix, Ariz. As you know, there was some difficulty in your securing authority to use this money although I understand that last November $60,000 of it was made available to you. Would you please advise me of the status now of work on the plans for this installation?

Dr. WAGNER. The architectural engineering feasibility study has been initiated, and we are having a meeting down there today, Mr. Chairman, regarding this study. We will then progress through the planning phase which we feel will be completed in the next fiscal year. Construction could start the following year.

HOSPITAL FACILITIES AT BELCOURT, N. DAK.

Chairman HAYDEN. When you appeared before this subcommittee last year you agreed to conduct an immediate study of the hospital needs at Belcourt in the Turtle Mountain Reservation in North Dakota, and you indicated further that you expected to ask for funds in your budget for 1965 for improvements at this hospital. Does your current budget contain funds for this hospital?

Dr. WAGNER. No sir, it does not.

Chairman HAYDEN. Did you request these funds from the Bureau of the Budget?

Dr. WAGNER. Yes.

Chairman HAYDEN. How does the patient load at this hospital, both inpatient and outpatient as well as related services, compare to the capacity of the hospital?

Dr. WAGNER. A recent survey of floor space revealed that, based on minimum Public Health Service standards, patient bed space is adequate for only 29 beds as compared to inpatient loads varying between 35 and 60 per day. Related services are totally inadequate. The hospital laboratory is located in two small rooms in the basement which are inadequate for the many procedures required by inpatient and outpatient services and remote from the inaptient area. Many deficiencies exist in the construction and arrangement of the dietary department. There is no provision for essential substerilization facilities, surgical dressing areas, cleanup room, anesthesia storage, or janitor's closet in the surgical area. No scrub facilities, cleanup area, or utility for the obstetrical suite exists. No space is available in the nursery for a treatment room or for a suspect nursery and it is impossible to control the ventilation in this area.

The outpatient clinic consists of three examining rooms and a grossly inadequate emergency room, which by necessity is used as a fourth examining room and small waiting area. Under these extremely crowded conditions, the staff treats over 2,000 outpatients per month. Current experience in 1964 indicates a higher outpatient load for 1964 as compared to 1963.

Chairman HAYDEN. When was this hospital built?

Dr. WAGNER. The hospital was constructed in 1930.

Chairman HAYDEN. Have you experienced any difficulty in obtaining qualified doctors to serve at Belcourt, and what has been your experience in keeping doctors there?

Dr. WAGNER. There has been no difficulty in obtaining generalists. However, some difficulty has been experienced in obtaining certain specialists. Doctors have generally not stayed beyond a 2-year period.

Chairman HAYDEN. Would improved facilities ease this situation?

Dr. WAGNER. Yes, sir.

Chairman HAYDEN. What is your present schedule for making improvements on this hospital?

Dr. WAGNER. The Division's long-range plan proposes requesting planning funds in 1966, construction funds in 1967, and equipment funds in 1968.

Chairman HAYDEN. What is your schedule for the Fort Yates Hospital?

Dr. WAGNER. Bid opening, April 8, 1964; construction time, 360 days.

Chairman HAYDEN. How much are you asking for next year?

Dr. WAGNER. No additional funds for this project are requested next year (fiscal year 1966).

Chairman HAYDEN. When do you hope to start construction?

Dr. WAGNER. Construction should begin on or about May 15, 1964, providing an acceptable low bid is received that will permit the authorization of a contract award within available funds.

Chairman HAYDEN. Your construction request includes $1,430,500 for 56 personnel quarters. Fifty-two of this number are for replacement. Are the 52 quarters in such a state of repair that replacement is mandatory, that is that they cannot be used for any longer period of time?

Dr. WAGNER. No sir; they are in very bad repair, and also they are unsafe for occupancy.

### CONSTRUCTION OF INDIAN SANITATION FACILITIES

Chairman HAYDEN. $4 million of your construction budget is for construction of Indian sanitation facilities. You have supplied a list of the locations at which you propose to construct these facilities. This list will be printed in the record.

(The information referred to follows:)

### SANITATION FACILITIES PROJECTS

(As revised Jan. 27, 1964)

Subsequent to the preparation of the President's budget two projects included therein were undertaken with funds made available to the Public Health Service by the Area Redevelopment Administration pursuant to Public Law 87–658 the Public Works Acceleration Act. Below is a revised list to reflect substitutions made from the backlog of Indian requests for assistance under this program and other minor changes.

| Reservation | Community | State | Project | Estimate |
|---|---|---|---|---|
| **ABERDEEN AREA** | | | | |
| Rosebud | Horse Creek and Swift Bear | South Dakota | Individual water and waste | $53,000 |
| Bois Fort | Nett Lake | Minnesota | Communal water and sewerage | 212,000 |
| St. Croix | Big Round Lake and Danbury [1] | Wisconsin | Individual water and waste | 54,000 |
| Upper Sioux | Granite Falls [1] | Minnesota | do | 35,000 |
| Rosebud | Reservation, general [1] | South Dakota | do | 50,000 |
| **ALBUQUERQUE AREA** | | | | |
| San Juan | San Juan Pueblo | New Mexico | Communal water and sewerage | 162,000 |
| Acoma | McCartys Village | do | do | 200,000 |
| Navajo | Scattered locations | Arizona and New Mexico | Communal shallow wells and springs | 230,000 |
| Do | do | do | Individual home water storage | 30,000 |
| Do | Teecnospos | Arizona | Communal water and sewerage | 100,000 |
| Do | Ganado | do | do | 100,000 |
| Do | Toadlena | New Mexico | do | 80,000 |
| Do | Scattered locations | Arizona and New Mexico | Individual water and waste | 100,000 |
| **BILLINGS AREA** | | | | |
| Fort Belknap | Beaver Creek | Montana | Individual water and waste | 45,000 |
| Blackfeet | Babb-St. Marys | do | do | 139,000 |
| Fort Peck | Wolf Point | do | Communal and individual water, and individual waste | 200,000 |
| Crow | Reno [2] | do | do | 95,000 |
| **OKLAHOMA CITY AREA** | | | | |
| Cherokee | Big Cove, rural | North Carolina | Individual and communal water, and individual waste | 100,000 |
| Cherokee County | Southwest District | Oklahoma | Individual water and waste | 77,000 |
| McCurtain County | Mountain District [3] | do | do | 50,000 |
| Adair County | West Central District | do | do | 70,000 |
| Caddo County | Fort Cobb-Anadarko Y District | do | do | 75,000 |
| Okmulgee County | Okmulgee District | do | do | 70,000 |
| Delaware County | Eucha District | do | do | 66,000 |

| | | | | |
|---|---|---|---|---|
| **PHOENIX AREA** | | | | |
| Salt River | Salt River (phase I) | Arizona | Communal water and individual waste | $90,000 |
| Papago | 5 villages | do | do | 100,000 |
| Rancherias | (To be selected) | California | Individual waste | 100,000 |
| Hopi | New Orabi | Arizona | Communal water and sewerage | 95,000 |
| San Carlos | Seven Mile Wash | do | Communal water and individual waste | 20,000 |
| Gila River (Pima) | Casa Blanca | do | do | 100,000 |
| **PORTLAND AREA** | | | | |
| Fort Hall | Bannock-Lincoln Creek Districts | Idaho | Individual water and waste | 119,000 |
| Colville | Okanogan Valley-Kartar-Disautel Areas | Washington | do | 84,000 |
| Warm Springs | Rural Areas | Oregon | do | 110,000 |
| Quinault | Queets | Washington | Communal water and individual waste | 32,000 |
| Muckleshoot | Auburn | do | do | 15,000 |
| Yakima | Toppenish District | do | Individual water and waste | 66,000 |
| **ANCHORAGE AREA** | | | | |
| Alaska | Hoonah | Alaska | Communal water and sewerage | 200,000 |
| Do | Norton Sound group (4 villages) | do | Communal water and individual waste | 135,000 |
| Do | Seward Peninsula group (3 villages) | do | do | 115,000 |
| All Areas [4]—Assistance to Indian communities in the connection of water and sewerage services to public housing sites | | | | 100,000 |
| Investigations, Emergency works, supplies and equipment | | | | 156,000 |
| Total, 1965 request | | | | 4,000,000 |

[1] 1 of 3 projects substituted in place of 2 projects previously budgeted which were undertaken with funds made available under the Public Works Acceleration Act.

[2] Formerly listed as Pryor. Change made at request of tribe so as to conform with the long range plan for their reservation. Project description and estimate cost unchanged.

[3] Listed in President's budget as Idabel District. Change recommended to enable better use of DIH personnel and facilities. Tribe concurs in change.

[4] Amendment made on the basis of the growing interest of the Indians in public housing and to balance request in view of revisions.

ACCELERATED PUBLIC WORKS CONSTRUCTION

Chairman HAYDEN. In addition to this, could you please supply for the committee record a list of all construction accomplished through the use of accelerated public works funds? Include in this list the locations, types of facilities, total costs, the Federal costs if there was a non-Federal contribution, and the amount of that non-Federal contribution and its source.

Dr. WAGNER. Very good, sir.

(The information referred to follows:)

FUNDS ALLOCATED AND PROJECTS UNDERTAKEN, FISCAL YEAR 1963

| Reservation | Community | State | Project | Federal cost |
|---|---|---|---|---|
| Fort Berthold | North and northeast segments | North Dakota | Individual water and waste | $65,000 |
| Pine Ridge | Pine Ridge | South Dakota | Community sewerage | 315,000 |
| Red Lake | Ponemah | Minnesota | Individual water and waste | 95,000 |
| Standing Rock | Cannonball | North Dakota | Community water and sewerage | 60,000 |
| Leech Lake | Tract 33 | Minnesota | Community water and individual waste | 46,000 |
| Laguna | Paraje-Casa Blanca | New Mexico | Community water and sewerage | 48,000 |
| Jicarilla Apache | Dulce | do | do | 152,000 |
| Santa Clara | Santa Clara Pueblo | do | do | 252,000 |
| Navajo | Kayenta | Arizona | do | 250,000 |
| Do | Scattered locations | do | Community water, individual waste, and home water storage. | 94,000 |
| Do | Chinle | do | Community water and sewerage | 250,000 |
| | Hydaburg | Alaska | do | 175,000 |
| | Angoon | do | do | 110,000 |
| Flathead | St. Ignatius | Montana | Individual water and waste | 48,000 |
| Blackfeet | Starr School area | do | Community and individual water and individual waste | 38,000 |
| Wind River | North Fork, Sage Creek | Wyoming | Individual water and waste | 70,000 |
| Fort Peck | Poplar (phase 1) | Montana | Community water and sewerage | 166,000 |
| Blackfeet | Upper Two Medicine | do | Individual water and waste | 62,000 |
| Cherokee | Cherokee (rural) | North Carolina | do | 177,000 |
| | Delaware County | Oklahoma | do | 60,000 |
| Cherokee | Cherokee | North Carolina | Renovation of sewage treatment plant | 120,000 |
| Papago | Santa Rosa | Arizona | Community water and individual waste | 81,000 |
| San Carlos | Bylas | do | Community water and sewerage | 105,000 |
| Gila River (Pima) | Casa Blanca (phase 2) | do | Community water and individual waste | 100,000 |
| Yakima | White Swan District | Washington | Individual water and waste | 70,000 |
| Do | Satus District | do | do | 40,000 |
| Colville | Keller-West Fork-Helgate | do | do | 44,000 |
| Lummi | Rural areas | do | Community water and individual waste | 50,000 |
| Swinomish | do | do | Individual water and waste | 17,000 |
| Yakima | Wapato District | do | Individual water and sewerage | 35,000 |
| Total 30 projects | | | | 3,195,000 |

FUNDS ALLOCATED AND PROJECTS UNDERTAKEN, FISCAL YEAR 1964

| Reservation | Community | State | Project | Estimate |
|---|---|---|---|---|
| Standing Rock | Kenel | South Dakota | Communal water and sewerage | $69,000 |
| Omaha | Macy | Nebraska | Communal water and individual waste | 289,000 |
| Red Lake | Little Rock | Minnesota | Individual water and waste | 100,000 |
| Mescalero Apache | Mescalero | New Mexico | Communal water and sewerage | 65,000 |
| Laguna Pueblo | Seama | do | do | 75,000 |
| Navajo | Crownpoint | do | do | 283,000 |
| Do | Shiprock | do | do | 380,000 |
| Do | Tuba City | Arizona | Communal sewerage | 200,000 |
| Fort Apache | Canyon Day | do | Communal water and sewerage | 110,000 |
| Salt River | Pima-Maricopa | do | do | 82,000 |
| Nez Perce | General Reservation | Idaho | Individual water and waste | 50,000 |
| Quileute | La Push | Washington | Communal water | 100,000 |
| Total 12 projects | | | | 1,800,000 |
| Total: 42 projects undertaken fiscal years 1963 and 1964, cost | | | | 4,995,000 |

NOTE.—Projects undertaken under the public works acceleration program are providing water supply and waste disposal facilities for more than 4,800 Indian and Alaska native homes, serving a population of more than 24,000 beneficiaries, located in 42 communities in 13 different States. Beneficiary contributions to the cooperative Federal-tribal construction program effort will total more than $1,900,000 in funds, equivalent value of labor provided, and materials. The tribal funds portion totals $1,530,000 to date.

RESERVATION HOSPITALS IN NEVADA

Chairman HAYDEN. Senator Bible.

Senator BIBLE. Mr. Chairman, I only have a couple of questions, and if the information is not readily available, it can be supplied for the record. Dr. Wagner, I believe you have two reservation hospitals in Nevada?

Dr. WAGNER. Yes, sir; one on Duck Valley Reservation at Schurz, and the other at Owyhee.

Senator BIBLE. Do you also have one at Stewart Indian School?

Dr. WAGNER. We have a school health center there for the BIA boarding school.

Senator BIBLE. That is a health center?

Dr. WAGNER. It does have some infirmary-type beds, but not the type for hospitals. We use our own and contract facilities for hospitalization.

Senator BIBLE. How many beds do you have at the Owyhee and how many beds do you have at the Schurz? If you don't have it readily available, you can supply it.

Dr. WAGNER. The one at the Owyhee runs around 20 beds, actual usable beds, and the one at Schurz is around 24 beds.

Senator BIBLE. And you carry how much in the school health center, how many beds?

Dr. RABEAU. Thirty.

Senator BIBLE. Is that kind of an out-patient deal?

Dr. WAGNER. No, sir; these are for students. When they get sick and we want to keep them overnight for observation, we keep them there. If they get seriously ill, we hospitalize them elsewhere. We hospitalize them in Schurz if it is a chronic condition, or at a local hospital under contract.

PERSONNEL

Senator BIBLE. At Owyhee how many personnel do you carry?

Dr. RABEAU. Twenty-six.

Senator BIBLE. That is doctors and chief of staff and your nurses?

Dr. WAGNER. That is correct, sir.

Senator BIBLE. And how many at Schurz?

Dr. WAGNER. Do you have that Dr. Rabeau?

Dr. RABEAU. Thirty-three, twenty-eight in the hospital and five field health.

Senator BIBLE. And at Stewart?

Dr. RABEAU. Seven.

NEED FOR MORE BEDS

Senator BIBLE. I visited Stewart and Schurz a number of times. I have not visited Owyhee recently. They have drawn to my attention at Schurz that they are in need of more beds. I wish you would update that and find out and supply me the information. I am giving you what they tell me. I don't know whether more beds were indicated or not; I think I took it up with you people at some earlier date. Would you give me a rundown on that? It can be supplied to my office. You don't need to encumber the record with this.

Dr. WAGNER. Yes, sir.

Senator BIBLE. I have never had that particular complaint with either Owyhee or Stewart, but I am anxious that they have sufficient beds.

PRACTICAL NURSE TRAINING PROGRAMS

Now, if an Indian girl at Stewart indicates to you that she would like to become a practical nurse or a registered nurse, what programs do you have that are of help to her?

Dr. WAGNER. For a practical nurse, Senator, we have a practical nurse school in Albuquerque for which she can apply, and we would be very happy to have her for practical nurse training.

Senator BIBLE. Would you supply me with a memorandum on that? Of course, one of our great problems in Indians has been to try to find a place for them in the economy and find some employment. And we found the vocational programs have been the most helpful. And I am wondering if the nursing plan might not be very helpful to the woman?

REGISTERED NURSE TRAINING PROGRAM

Dr. WAGNER. It certainly should be. For the registered nurse the Bureau of Indian Affairs administers a vocational training program that would also apply here.

Senator BIBLE. Would you supply that to me by letter? You do not need to encumber the record on it now.

Dr. WAGNER. I will, sir.

Senator BIBLE. I have only one further question.

INDIAN COLONIES IN NEVADA

One of the problems that we constantly have in Nevada is with our Indian colonies. I have particularly in mind Elko, Winnemucca, and Las Vegas. And I have talked to you gentlemen about it many times. What can you supply for the Indian colonies under the law? You have brought water in there, and you have given them some sanitation. Do you go beyond that?

Mr. STEVENSON. To this extent: We bring a water supply into the home and provide waste disposal facilities either in the home, if the Indians provide the bathroom space, or outside sanitary privy facilities. In some cases drainage for mosquito or insect control is provided and there is some screening done. This is under Public Law 86–121.

INDIAN COOPERATION IN THE COLONIES

Senator BIBLE. As you know, one of our problems in a growing State, and I am sure it would be true in one of these Southwestern States, is that we have an Indian colony and then a subdivision built right around it. Now, what can you do to try to help the Indian population—upgrade the Indian colony area, which, of course, as you know, is held in trust for the Indians? You can bring sewerage in there, and you can bring water in there, and you can provide their indoor facilities, and their washbasins and that sort of thing?

Mr. STEVENSON. With Indian cooperation in providing much of the physical work. We have had 11 projects in Nevada, for example. Six of them have been completed, and there are five in the fiscal 1964 program that we are just about to get underway.

HISTORY AND PROPOSED PROGRAM

Senator BIBLE. Will you tell me what you have done in the past and what you propose doing in 1965 in that area in Nevada? Simply send the letter to my office.

Mr. STEVENSON. I would like to make one other comment. We now have a survey underway in Nevada to cover all of the colony needs. This survey is to be completed by this summer. We shall then have the total job that remains to be done.

Senator BIBLE. This has been a most perplexing problem to me, and it probably has been to you men as well. If you have any suggestions to make, they are certainly welcome.

Dr. WAGNER. You know we are primarily responsible for health. The Bureau of Indian Affairs is doing quite a bit more in housing and industry and labor and that type of thing.

Senator BIBLE. I understand that a few years ago we transferred this function to HEW.

Dr. WAGNER. The housing, the economic status and ability to buy and utilize food properly all have a very significant bearing on the health status.

Senator BIBLE. I would appreciate any information that you can give me on it. You can supply it to my office, and make any suggestions you may have as to how we can be of more assistance to these colonies.

Mr. Chairman, I have no more questions.

HOSPITAL CONSTRUCTION IN PHOENIX, ARIZ.

Chairman HAYDEN. I wanted to ask for a little more information about this hospital that is being constructed in Phoenix. What area will that hospital serve?

Dr. WAGNER. It will serve the entire Phoenix area. That includes the whole State of Arizona, the whole State of Nevada, and part of California. and a little part along the border of the New Mexico area. It will be a referral center for 7 to 10 outlying hospitals.

Chairman HAYDEN. That is, to say, if an Indian becomes ill in one of these outside hospitals and it is decided that he needs further treatment and better treatment than he can receive there, he will be brought from Nevada or New Mexico or any part of Arizona to Phoenix?

Dr. WAGNER. That is correct, sir. In addition, the specialists on the Phoenix staff will visit these small hospitals and provide the type of training and stimulus for our general practice medical officers stationed in the outlying hospitals thereby improving the care of people.

Chairman HAYDEN. In other words, the staff stationed there go to outside hospitals?

AREAWIDE REFERRAL CENTER

Dr. WAGNER. Yes, sir. This will be a regular areawide referral center, a medical center which will provide a coordinated program for these small outlying hospitals which because of their size have difficulty in maintaining a type of program that a hospital normally would maintain.

Chairman HAYDEN. We have the largest Indian population in the United States in Arizona; New Mexico is next. And you have a very considerable number in Nevada.

Senator BIBLE. Correct.

Chairman HAYDEN. And this corner of the country has not had the medical attention that it should.

Senator BIBLE. Might I just follow that through by a couple of more questions.

BEDS AND PERSONNEL

How many beds will you have at this medical center?

Dr. WAGNER. 200.

Senator BIBLE. And how large a staff will you carry?

Dr. WAGNER. The staff will be around 350 to 375, counting the nurses.

Senator BIBLE. How many doctors would you have aboard, medical staff?

Mr. CHADWICK. We can provide that for the record.

Dr. WAGNER. I think roughly about 40.

Senator BIBLE. I join the Chairman, I think that is very important.

Chairman HAYDEN. Senator Bartlett, any questions?

COOPERATION IN INDIAN HOUSING PROGRAM

Senator BARTLETT. Just a few.

Doctor, what connection is there between your service and the Indian housing program?

Dr. WAGNER. We are in a cooperative working relationship with the Bureau of Indian Affairs and the Public Housing Administration. And as you know, the Public Housing Administration has earmarked some 3,200 units of Indian housing. We are trying in future planning to coordinate our planning of the sanitation and water supply facilities so that when the Public Housing Administration constructs the houses there will be a water and sewerage system available to hook the house on. At the present time there are some houses going up or planned in areas where there are no sewerage or water supply facilities. Since our program is based upon the project type of appropriation, funds aren't available at the present time to construct the water supply and sewerage for these new houses.

FUNDS FOR CONSTRUCTION OF WATER SUPPLY AND SEWERAGE

Senator BARTLETT. May those houses be put up even if the sanitary facilities are lacking under the program?

Dr. WAGNER. No, sir.

Senator BARTLETT. They have to go together?

Dr. WAGNER. I am speaking now without authority, but I think that the Public Housing Administration has to have the water supply and sanitary facility available before they have the authority to construct the house.

Senator BARTLETT. Will it be possible to build all of those 3,000 units as projected even though facilities for water and sewerage are not available in some geographic areas?

Dr. WAGNER. I think it will create a problem for the Indians, because I think that some of this housing is planned and urgently

needed and will have to be delayed, because we do not have funds authorized for that purpose.

Senator BARTLETT. You have the plans but no money, is that it?

### COOPERATION WITH PUBLIC HOUSING ADMINISTRATION

Dr. WAGNER. It was only recently that the Public Housing Administration pinpointed the area where they were going to construct these houses. And, of course, we don't have the flexibility in our program that we can reprogram the moneys that are already earmarked for high priority projects to fit their immediate plans. We hope that in the future we can work together so that as housing is planned we will include in our budget the moneys for the construction of a water supply and the sewage disposal system. Sanitation facility funds are not available for the immediate housing needs of this magnitude.

### LOW-RENT HOUSING AND SELF-HELP HOUSING

Senator BARTLETT. Is this housing program divided into two parts, one with respect to low-rent housing and one for self-help housing

Dr. WAGNER. Yes, sir. Now, some of this housing, Senator, will be where we have already constructed water supplies.

Senator BARTLETT. I understand that. I suppose the major portion of the housing will be in such areas. But some will not be.

Dr. WAGNER. A substantial number of homes will not be in areas where water systems are available.

Senator BARTLETT. Isn't it the determination of the agencies that the housing which will not be built is very badly needed?

Dr. WAGNER. Yes, sir.

### PLANNED CONSTRUCTION OF HOUSES

Senator BARTLETT. Wasn't it planned to start construction of all of these houses in fiscal 1965?

Mr. STEVENSON. If I may speak to that, yes, sir. The agencies plan to start some units this fall, and the bulk of the rest next spring, which would be in 1965.

Senator BARTLETT. This means that some of them will not be built under the existing conditions.

### RECENT DECISION ON LOCATION OF HOUSES

Mr. STEVENSON. That is correct, sir. If I might explain one item, the method that is used, applications have come into the Public Housing Administration, and it wasn't until recently that they firmed up exactly where these houses were to be located.

Senator BARTLETT. This is far too recently for you——

Mr. STEVENSON (interrupting). To put it in our regular budget; yes, sir. And our regular construction budget is based on priority of projects due to urgency of health needs, the ability and willingness of the Indian to participate, and so on. So we do not have this housing program covered.

ESTIMATED CONSTRUCTION FUND REQUIREMENTS

Senator BARTLETT. Do you have a rough estimate yet as to how much money you would require to round out this 3,100 or 3,200—which did you say it was?

Dr. WAGNER. 3,200, sir.

Senator BARTLETT. 3,200 unit program?

Dr. WAGNER. We had a recent meeting with the Public Housing Administration and the Bureau of Indian Affairs. Mr. Stevenson has the detail.

Mr. STEVENSON. Breaking it into two parts, the mutual help housing is the area where generally we do not have facilities. This would run about a million and a half dollars. The low-rent units are in effect subdivision-type developments, and bringing water to sites and away from the sites of those units that do not have service at present would run about $700,000. This would be in construction funds, Senator.

ADDITIONAL PERSONNEL

There is another aspect to this. The ongoing program is using our staff to the hilt, and we are fully staffed. Therefore we have a need for additional implementing staff at a cost of $220,000 to carry on the additional load of this magnitude.

Senator BARTLETT. Then if the program were to go forward in an orderly and planned fashion—and it would be a shock to me I must confess were I to discover that it cannot—you would need on the order of $2,200,000——

Mr. STEVENSON. $2,200,000.

Senator BARTLETT. Plus $220,000 for staff activities?

Mr. STEVENSON. Yes, sir.

IMPORTANCE OF INDIAN HOUSING

Senator BARTLETT. I want to say for the record, Mr. Chairman, that I think that this is a mighty important proposition. Indian housing, as we know, is woefully deficient. I think it is a marvelous step to build the houses with water and sewerage facilities available. And I for one want to express the hope that we won't have to delay this program for a whole year. I am glad that you developed the problems, Mr. Stevenson, for the record. I think it is vital that we must not lose any time at all. It is part, surely, of President Johnson's program of "war on poverty," it includes housing and better living conditions. I am hopeful that by way of supplemental or otherwise the request for these funds may be made.

That is all, Mr. Chairman.

Chairman HAYDEN. Senator Mundt has submitted a number of questions. Will you please prepare replies to be placed in the record.

(The material requested follows:)

RESPONSES TO QUESTIONS BY SENATOR MUNDT

WATER FOR THE COMMUNITY OF WAKPALA

Question. I have had considerable correspondence concerning the problem of providing water for the community of Wakpala. The last letter I had in January indicated that there was no immediate solution to the problem, but that most of them had been economically unfeasible. As I understand it, a study of

alternative methods is underway. How is this coming? Do you think that it will be done within the 6 months from February 1 as originally anticipated? Can you give us any encouragement at all on this problem?

Answer. Availability of acceptable quality water at Wakpala is a major problem. An engineering investigation, including test drilling, is being initiated this spring using fiscal year 1964 funds. The investigation of alternative methods of obtaining acceptable water should be completed within 6 months (by late fall 1964).

NURSES AT SIOUX SANITARIUM, SOUTH DAKOTA

Question. What do you have in the budget this year for our program of providing additional training for Indian practical nurses out at Sioux Sanitarium in South Dakota? Will you give us a rundown on the accomplishments of this program? Do you think that it is possible that we might expand this program by making funds available for graduates who have completed their additional nurses training to attend one of the many fine regular schools of nursing in South Dakota? What would be the optimum amount of money that you could use for this program next year?

Answer. Funds in the amount of $105,000 are provided for additional training of Indian practical nurses at Sioux Sanitarium, Rapid City, S. Dak., in 1965.

Ten practical nurses began their advanced training in November 1963 and it is planned that approximately 50 nurses will have had the advanced training by the end of fiscal year 1965.

In considering the expansion of this program to graduate (RN) nurse training in regular schools of nursing in South Dakota, the following should be considered:

1. The recent amendment to the Indian Vocational Training Act, August 1963, allows expansion of the act to include nursing education in a 3-year course of study leading to a diploma in nursing (RN).

2. Of the present class members at Rapid City, 2 would qualify for admission to a school of nursing and possible 6 of the potential 50 may qualify. In the past 7 years, nine girls from the Albuquerque Practical Nurse School entered professional schools of nursing.

It costs approximately $10,000 to complete a baccalaureate program in nursing. In an associate degree program such as offered in the State University of South Dakota or a diploma program as offered in two or three of the schools in South Dakota, approximately $7,500 would be required. With a maximum potential of five practical nurses from the advanced training course who qualify for admission to a professional school of nursing, the cost per year would be approximately $12,500.

SANITATION FACILITIES ON ROSEBUD RESERVATION

Question. I am interested in your $53,000 expenditure outlined on page 86 for sanitation facilities at the communities of Horse Creek and Swift Bear on the Rosebud Reservation. When will this project get underway? Do you think we can get it done this year?

Answer. This project, in the fiscal year 1965 budget, will provide domestic water supply and waste disposal to 30 Indian homes. Experience during the life of this program has been that project funds are made available to the Division in early fall, thus construction work in northern areas, other than possibly well drilling, is usually not started until spring of the fiscal year, in this case 1965. Cooperative Federal-tribal projects of this type are generally scheduled for completion in 12 to 18 months from the time funds become available for use.

WAGNER HOSPITAL BUDGET

Question. I notice that you have programed $9,000 for the hospital at Wagner. Is this all you have in the budget for the Wagner Hospital this next year?

Answer. Yes, sir.

SISSETON HOSPITAL BUDGET

Question. I am wondering if the $12,000 programed for the Sisseton Hospital on page 60 of your justifications will be sufficient. It seems to me that this is hardly enough to do the needed maintenance and repair work there.

Answer. The $12,000 programed in the fiscal year 1965 budget is for the replacement of a heating plant boiler. Regular maintenance and repair work will also be accomplished within the limits of such funds.

In the Division 5-year construction plan an alteration project is proposed for the Sisseton Hospital to provide space for outpatient and field health activities.

It is also proposed to convert existing clinic space into key staff quarters. This project is scheduled as follows:

| | |
|---|---|
| Planning funds, fiscal year 1968 | $21,000 |
| Construction funds, fiscal year 1969 | 327,000 |
| Equipment funds, fiscal year 1970 | 27,000 |

Chairman HAYDEN. If there are no further questions, we thank you for your appearance.

COMMITTEE RECESS

The committee will stand in recess until 10 a.m., Wednesday, March 4, 1964, when we will hear the Fine Arts Commission, the National Art Gallery, the Smithsonian Institution, and the Kennedy Cultural Center.

(Whereupon, at 12:10 p.m., Tuesday, March 3, 1964, the committee adjourned, to reconvene at 10 a.m., Wednesday, March 4, 1964.)

# DEPARTMENT OF INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1965

WEDNESDAY, MARCH 4, 1964

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, D.C.*

The subcommittee met at 10 a.m., pursuant to recess, in room 1223, New Senate Office Building, Hon. Carl Hayden (chairman) presiding.

Present: Chairman Hayden and Senator Young.

## COMMISSION OF FINE ARTS

## STATEMENTS OF WILLIAM WALTON, CHAIRMAN; LINTON R. WILSON, SECRETARY; CHARLES H. ATHERTON, ASSISTANT SECRETARY; AND JOSEPH M. BREEN, BUDGET OFFICER

### BUDGET REQUESTS FOR 1965

Chairman HAYDEN. The committee will please come to order.

The budget estimate of the Commission of Fine Arts for fiscal year 1965 is $161,000, an increase of $70,000 over the amount appropriated in fiscal year 1964. The justification for this request will be included in the record.

(The justification referred to follows:)

*Salaries and expenses*

| | |
|---|---|
| Appropriation, 1963 | $82,850 |
| Appropriation, 1964 | 91,000 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | |
|---|---|
| To provide for increased pay costs for fiscal year 1964 positions | 2,000 |
| To provide for 1 new GS–7 position, reallocation and within grade promotions | 7,000 |
| Increase for special studies by outside consultants, replacement of display equipment, remodeling of conference room, new exhibition and work space, preparation of special models and increase in printing and other expense items | 61,000 |
| Net increase, 1965 | 70,000 |
| Budget estimate, 1965 | 161,000 |

*Analysis by activities*

| | Fiscal year 1963 amount available | Fiscal year 1964 amount available | Fiscal year 1965 estimate | Increase (+) or decrease (−) 1965 compared with 1964 | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pay cost [1] | Program |
| Administration | $82,690 | $91,000 | $161,000 | $70,000 | $2,000 | $68,000 |
| Unobligated balance lapsing | 160 | | | | | |
| Total | 83,850 | 91,000 | 161,000 | 70,000 | 2,000 | 68,000 |

[1] To provide for increased pay costs for fiscal year 1964 positions.

JUSTIFICATION STATEMENT

The estimate of funds needed to operate the Commission of Fine Arts during fiscal year 1965 is $161,000, which is an increase of $70,000 over the sum appropriated in fiscal year 1964. The increase is necessary to meet additional travel costs of the members; increased operating expenses; improvements to equipment; additional models, graphic and photographic studies; funds to employ outside consultants to make studies on important phases of the Commission's work; grade and ingrade promotions, and one new staff position in grade 7 (secretary series). There would also be corresponding increases in the costs of personnel benefits, and printing.

The membership of the Commission has completely changed during the past fiscal year. The magnitude of the projects now being presented for review has necessitated the introduction of new methods of reviewing them; and a gallery 90 feet long and 16 feet wide has again been made available for the use of the Commission in its work. The additional personnel, consultant services, and equipment will be used in making more intensive studies than have hitherto been possible.

1. The Commission of Fine Arts was established in 1910 to fill the need for a permanent advisory agency whose members would be qualified to make available to the Government the authority of expert opinion upon questions of art arising in the course of administration. As an independent agency, it was intended to serve a twofold purpose; first, to give free advice concerning esthetic standards and matters of civic design involved in the orderly development of the city of Washington; and, second, to furnish expert opinion on questions of art to the President, to the Congress and its committees, and to the heads of various departments and agencies of the Federal and District Governments.

The seven members of the Commission are appointed by the President and serve without pay. They give freely of their time, meeting for 1 or 2 days each month as required, with compensation only to actual expenses of travel and subsistence incurred in attending meetings. The technical and professional problems that come to the Commission fall primarily into the fields of architecture, general site planning, landscape architecture, sculpture and painting, but, in recent years, an increasing amount of time has been devoted to critical review and report of proposed legislation, whose aim is to foster production and appreciation of the fine arts.

The authorized scope of the Commission's activity covers not only Federal and District Government projects in the city of Washington and its environs, but also certain designated private and semipublic construction projects under authority as noted hereafter; and its scope often includes Federal projects outside District of Columbia and abroad, such as the World War I and World War II memorials and cemeteries, the designs for which come before the Commission by authority of Public Law 534, 67th Congress (42 Stat. 1509) as amended. During the 53 years of the Commission's existence, the 71 members who have served on it, have steadfastly insisted on the maintenance of the highest esthetic standards in the design of the Federal and semipublic projects that are referred to it by law.

The current staff of the Commission comprises an executive secretary (GS–15), a staff assistant for fine arts matters (GS–13), a staff assistant for legal matters (GS–13), a planning assistant (GS–11), an editorial assistant (GS–10), and two secretaries (stenography) (GS–7).

2. Specific functions of the Commission comprise the following:

(*a*) Under the provisions of its enabling act, Public Law 181, 61st Congress, approved May 17, 1910, the Commission of Fine Arts advises generally upon questions of art when required to do so by the President, or by any committee or Member of either House of Congress.

It advises specifically on all plans for parks and public buildings, constructed by the executive departments or the District of Columbia, which in any essential way affect the appearance of the city of Washington and its environs. Authorization has been given or is pending for the design of many new Federal and District buildings, most of which are planned for erection in the central area of the city of Washington, as part of the expansion of the federal or District Governments.

It also advises upon location and design of statutes, fountains, and monuments in the public squares, streets and parks in the District of Columbia and upon the selection of models for the statues, fountains, and monuments erected under the authority of the United States and upon the selection of artists for the execution of the same.

Rendering an opinion on the merit of designs for medals, insignia, coins, or other art projects created and produced by the executive department is also a phase of the Commission's duties.

(*b*) The Commission carries out the provisions of the Shipstead-Luce Act, Public Law 231, 71st Congress (46 Stat. 366) approved May 16, 1930, an act to regulate the height, exterior design and construction of private and semipublic buildings in certain areas of the National Capital. In this function the Commission reports its findings on the above features to the Commissioners of the District of Columbia before building permits are issued at the Permit Branch of the Department of Licenses and Inspections.

(*c*) The Commission also carries out the provisions of the Old Georgetown Act, Public Law 808, 81st Congress (64 Stat. 903, ch. 984), approved September 22, 1950, an act to regulate the height, exterior design and construction of private and semipublic buildings in the Georgetown area of the National Capital. This action also requires review and recommendations to the Commissioners of the District of Columbia on the merits of the designs submitted for building permits.

(*d*) Gifts of works of art to the Government from private individuals or foreign governments are reviewed by the Commission for artistic merit and suitability before acceptance.

(*e*) Private organizations and citizens from the entire country frequently call upon the secretary's office for advice and suggestions that vary from the authenticity of historical monuments to the procedures for establishing a municipal art commission.

(*f*) Periodic and special reports are compiled and issued as required or requested; for example, the regular reports of the Commission's activities, and a special report, to be issued in 1964, surveying the major work of the Commission since 1910.

*Itemization of estimate*

| | Actual, 1963 | Estimate, 1964 | Estimate, 1965 | Increase (+) or decrease (−) |
|---|---|---|---|---|
| Program and financing: | | | | |
| Total obligations | $82,690 | $91,000 | $161,000 | +$70,000 |
| Unobligated balance lapsing | 160 | | | |
| New obligational authority (appropriation) | 82,850 | 91,000 | 161,000 | +70,000 |
| 11 Personnel compensation | 65,240 | 72,000 | 81,000 | +9,000 |
| 12 Personnel benefits | 4,570 | 5,000 | 6,000 | +1,000 |
| 21 Travel and transportation of persons | 5,804 | 6,000 | 7,000 | +1,000 |
| 23 Rent, communications, and utilities | 1,021 | 1,000 | 1,000 | |
| 24 Printing and reproduction | 893 | 2,000 | 3,000 | +1,000 |
| 25 Other services | 2,717 | 3,000 | 25,000 | +22,000 |
| 26 Supplies and materials | 1,373 | 1,000 | 4,000 | +3,000 |
| 31 Equipment | 1,072 | 1,000 | 34,000 | +33,000 |
| Total obligations | 82,690 | 91,000 | 161,000 | +70,000 |

BUDGET INCREASE

Chairman HAYDEN. Would you please explain in some detail the reasons why this large increase is required in fiscal year 1965?

Mr. WALTON. Mr. Chairman, I am William Walton, Chairman of the Commission of Fine Arts, and I have a statement which I would like to put in the record.

Chairman HAYDEN. All right, you do that and then you may highlight it.

STATEMENT OF WILLIAM WALTON, CHAIRMAN, COMMISSION OF FINE ARTS

The Commission of Fine Arts is requesting an appropriation of $161,000 which represents an increase of $70,000 over the amount available for fiscal year 1964. Of this increase nearly half would be nonrecurring nature, with funds allocated to improvements of equipment and the purchase of models and graphic studies.

The remaining funds would meet increased travel costs of the members, additional operating expenses, funds for consultants, grade and ingrade raises, and one new position at GS–7.

At the present time the Commission has seven regular employees; an Executive Secretary, and Assistant Secretary, a General Counsel, an administrative and planning assistant, an editor-writer, and two stenographers. The new position, in the secretary series, would supplement the work of the existing staff and also assist in operating a gallery which was recently restored to the Commission's use.

During fiscal year 1963, the Commission acted upon 603 formal submissions, carrying an estimated cost of many millions of dollars. A tabular listing is attached hereto showing the number of applications for the past 3 fiscal years.

The number of formal submissions to the Commission has been steadily increasing, as have the number of informal reviews and daily requests for information about Washington. The appropriations for the Commission have remained relatively small. I therefore hope the committee will favorably consider our request for the amount needed for the next fiscal year.

The members of the Commission are appointed by the President and serve without compensation, receiving only actual travel expenses incurred in attending meetings. Since the Commission was established in 1910, more than 60 distinguished architects, landscape architects, painters, sculptors, and laymen in the field of fine arts have given freely to their Government the benefit of their experience and professional skills in advising the President, the Congress, and Government agencies on matters involving the fine arts.

*Number of submissions presented to the Commission of Fine Arts during the past 3 fiscal years*

| | 1961 | 1962 | 1963 |
|---|---|---|---|
| Shipstead-Luce Act (approved May 16, 1930) | 107 | 113 | 102 |
| Old Georgetown Act (approved Sept. 22, 1950) | 280 | 273 | 281 |
| Commission of Fine Arts Act (approved May 17, 1910) | 196 | 212 | 220 |

FISCAL YEAR 1961

| Item | Cases received | Approved | Disapproved |
|---|---|---|---|
| Shipstead-Luce Act | 107 | 82 | 25 |
| Old Georgetown Act | 280 | 250 | 30 |
| Commission of Fine Arts Act | 196 | | |

FISCAL YEAR 1962

| | | | |
|---|---|---|---|
| Shipstead-Luce Act | 113 | 82 | 31 |
| Old Georgetown Act | 273 | 226 | 47 |
| Commission of Fine Arts Act | 212 | | |

FISCAL YEAR 1963

| | | | |
|---|---|---|---|
| Shipstead-Luce Act | 102 | 73 | 29 |
| Old Georgetown Act | 281 | 204 | 77 |
| Commission of Fine Arts Act | 220 | | |

Source: Submitted with fiscal year 1965 budget. Compiled Aug. 26, 1963.

INCREASES IN BUSINESS

Mr. WALTON. The reasons for our increase in our budget are the increase in the business that we must do for the District of Columbia and the Federal Government. A number of projects have increased vastly. We have a list here of about 12 major Federal projects that we passed in the past year.

WATERGATE TOWN PROJECT

In addition, we passed on increasingly large private projects, particularly in the area which is referred to as Watergate over by the river in the area of the Cultural Center. We wish to increase the efficiency of the Commission by purchasing equipment that will enable us to handle the models and the designs that the architectural firms bring us. We have no equipment. We are not replacing equipment. It does not exist.

FURNISHING THE COMMISSION OFFICES

We wish to furnish the offices of the Commission. My predecessor, who had been in office a good many years, owned his own office furniture and took it with him. So, I have inherited an empty office, and I am living with borrowed furniture. I would like to buy some so it would now belong to the Commission. Most of these are nonrecurring expenses.

EMPLOYING TECHNICAL CONSULTANTS

There will be display tables, projection equipment, all sorts of the modern conveniences of architectural display. Then, we also need funds for temporary consultants on technical matters that our own staff do not have time or the particular training to obtain.

Chairman HAYDEN. This would be to employ talent?

Mr. WALTON. We would like to briefly for short reports. That, in essence, is what we need.

ESTIMATED EXPENDITURE

Chairman HAYDEN. How much do you estimate will be expended to employ outside consultants during the coming fiscal year?

Mr. WALTON. I would think it would not be more than $4,000 or $5,000.

Mr. ATHERTON. Within that range?

INCREASING BUILDING HEIGHTS IN DISTRICT OF COLUMBIA

Mr. WALTON. It would be within that range, depending on what our needs are. We, for instance, would like consultants to help us deal with the problem, a crucial one, in the District of increasing the height of the buildings. It cannot be done arbitrarily. It must be done with a very careful technical study on what effect would be had on the skyline and real estate values, and we will need technical help on this.

PAST ACCOMPLISHMENTS AND FUTURE PLANS

Chairman HAYDEN. Would you review for the committee your accomplishments in fiscal year 1964, and the problems which you foresee in fiscal year 1965?

MEMORIAL PROJECTS

Mr. WALTON. The accomplishments of the past year would break down into about three categories. We have been involved in three

large memorial projects, the Theodore Roosevelt Memorial, the Franklin Delano Roosevelt Memorial, one to Mary McLeod Bethune, and the Taras Shevchenko Memorial.

These are all ones that will have great bearing on the look of Washington. In addition, we have spent a great deal of time passing on plans for Lafayette Square, the Court of Claims Building, and the other Federal building which will, again, have great impact on the looks of the city. In addition, two large Federal office buildings have come before our Commission.

Then, we have friends in the room today, who have brought us projects, the National Cultural Center, the National Portrait Gallery, the National Air Museum, and the National Zoological Park, that have all passed across our tables in the last calendar year.

### Private Industry Projects

The private business has been even bigger. Washington, as you know, is in the state of some real estate flux. As you drive around town, you have to struggle with the traffic in those areas, and they are complex projects, particularly the Columbia Plaza one and the Watergate one. We have probably spent more hours struggling to improve the design of Watergate Town than any single project and, of course, in addition, we handle a vast mass of the small business in Georgetown.

Chairman Hayden. Is that Watergate area satisfactorily settled now?

Mr. Walton. I think so. We have granted them the right to have a license to build. They compromised on the height and the principle that we set up for that part of the river is that nothing can go higher than the Lincoln Memorial. We consider that a very important civic point to establish. And we hope that all future buildings will conform to this regulation, nothing must go higher than the Lincoln Memorial.

### New Methods of Reviewing Projects

Chairman Hayden. Your justification statement indicates that the projects now being presented to the Commission on Fine Arts have necessitated introduction of new methods of reviewing them. Just what are these new methods?

Mr. Walton. Well, architects are now inclined to bring much more elaborate models and much more elaborate drawings to us. We do not even have a display place for such visual aids as they are bringing us. We have acquired an extra room, because the size of our meetings increased, and the materials that the architects bring have increased, so now we need all of the equipment for this room which will also double as a gallery for the public to see the work of the Commission of the past and the future.

### Estimated Cost of Furniture

Chairman Hayden. How much do you estimate your new furniture will cost?

Mr. Walton. Mr. Atherton, you are the furniture expert.

Mr. ATHERTON. Approximately $4,500. We have estimated this on the basis that most of this equipment will be of the type that is not regularly stocked by the General Services Administration, because it is special equipment.

This would include the tables, for instance, display tables, et cetera.

Chairman HAYDEN. No other member of the committee having any questions to ask, this concludes your hearing. Thank you for your appearance.

## NATIONAL GALLERY OF ART

## STATEMENTS OF ERNEST R. FEIDLER, ADMINISTRATOR; HUNTINGTON CAIRNS, SECRETARY-TREASURER AND GENERAL COUNSEL; PERRY B. COTT, CHIEF CURATOR; AND LLOYD B. HAYES, ASSISTANT ADMINISTRATOR

### 1965 BUDGET REQUEST

Chairman HAYDEN. Mr. Feidler.

Mr. FEIDLER. Good morning, Senator. I would like to introduce Huntington Cairns, our Secretary-Treasurer and General Counsel; Perry B. Cott, our Chief Curator; and Lloyd D. Hayes, our Assistant Administrator.

Chairman HAYDEN. For fiscal year 1965 the National Gallery of Art requests an appropriation of $2,147,000, some $9,000 more than the amount appropriated last year. However, this amount is $29,000 less than the total sum anticipated for 1964 inasmuch as a supplemental appropriation of $38,000 was proposed. The justifications for the budget request will be printed in the record.

(The statement referred to follows.)

### HIGHLIGHT STATEMENT

The appropriation "Salaries and expenses, National Gallery of Art", is authorized by the joint resolution of Congress approved March 24, 1937 (20 U.S.C. 71–75). Appropriated funds are used only for the operation and maintenance of the gallery. Works of art are acquired by gift from public-spirited collectors or by purchase with funds donated for that specific purpose.

One new position (a research assistant, GS–7) is requested for fiscal year 1965. However, the proposed appropriation of $2,147,000 provides no increase in 1965 in the average employment of 314 estimated for the current year. The 1965 estimate also includes two nonrecurring items: (1) $8,000 for a foreign language edition of the Gallery Information Booklet, and (2) $3,000 for repointing the marble dome of the building.

In the current year $79,500 is allotted for completion of the 2-year skylight renovation project. Due to this special item in 1964, the total appropriation requested is $29,000 less than the estimate for the current year after providing in 1965 for (1) the two items mentioned above, and (2) increases in salaries and related costs which are not subject to administrative control.

*Salaries and expenses*

| | |
|---|---|
| Appropriation, 1963 | $2,114,000 |
| Appropriation, 1964, including anticipated supplemental of $38,000 | 2,176,000 |

SUMMARY OF INCREASES AND DECREASES, 1965

| | |
|---|---|
| 1. To pay 1964 salary increases for full year in 1965 | +21,400 |
| 2. To pay salary of 1 new research assistant GS-7, at $5,803 | +5,800 |
| 3. To pay the net cost of within-grade promotions | +13,600 |
| 4. To pay increases in personnel benefits | +4,000 |
| 5. To pay salaries for extra holiday (Inauguration Day) | +2,800 |
| 6. To pay for printing of foreign language edition of Gallery Information Booklet | +8,000 |
| 7. To pay for increase in cost of replacing equipment | +2,500 |
| 8. Reduction due to increase in savings from delays in filling vacant positions | −7,600 |
| 9. Reduction due to 1 less compensable day in 1965 | −6,000 |
| 10. Reduction due to decrease in building repairs | −73,500 |
| Net change, 1965 | −29,000 |
| Budget estimate, 1965 | 2,147,000 |

NOTE.—Increases and decreases have been rounded to the nearest $100.

## EXPLANATION OF INCREASES AND DECREASES

### PAY INCREASE EFFECTIVE JANUARY 5, 1964

The Federal Salary Reform Act of 1962 provided a pay increase for Classification Act employees, effective January 5, 1964. This increase will be paid during the current fiscal year for 12.5 pay periods at a cost of $19,784. The cost of the increase for the full year of 1965 is estimated at $41,152—an increase of $21,368 over the current year.

### ONE RESEARCH ASSISTANT, GS-7

In 1956 two additional research assistants were justified in the estimates for 1958 on the basis of the growth in the gallery's collections. With the addition in 1958 of these two employees, the staff available for research and other professional work relative to paintings and sculpture numbered six. This staff has not been increased since that time although the collection of gallery-owned paintings has increased by 22 percent. Additional paintings to be added to the collection upon the settlement of the Chester Dale estate will bring the collection to a level approximately 47 percent above the 1958 figure.

Even more significant than the growth of the collection is the phenomenal increase in the services this staff is now performing for the benefit of the general public. Pertinent statistics are tabulated below:

| | 1958 | 1963 | Percent increase |
|---|---|---|---|
| Number of gallery visitors | 913,481 | [1] 1,793,500 | 96 |
| Number of special exhibitions assembled and installed | 6 | 15 | 150 |
| Number of expert opinions on works of art owned by the general public | 341 | 1,716 | 403 |
| Number of answers to inquiries requiring professional knowledge | 2,150 | 4,350 | 102 |

[1] The 1962 attendance of 1,332,506 is more representative of the normal increase due to the large number of visitors in 1963 who came to view the Mona Lisa.

Additionally, two completely new programs for gallery visitors have been initiated since 1958: (1) Closed-circuit radio broadcasts, now in 32 exhibition rooms, and (2) printed leaflets explaining the works of art in 36 galleries. The major portion of the professional work of writing scripts and texts for these programs must be done by this staff of curators and research assistants. Changes in paintings in the rooms of course necessitate the revision of existing material. It is hoped that with an additional research assistant, printed leaflets can be provided for many more of the galleries. These leaflets are available to visitors without charge through the use of donated private funds to cover paper and printing costs.

As a general justification in support of the total 1965 request for personnel compensation and benefits, including this new position, the following tabulation is presented. We believe that the reduction in employment realized, during this 5-year period of marked growth in all phases of the gallery's program, indicates the success of positive management efforts toward effective and efficient manpower utilization.

*Average number of all employees (including full-time equivalent of part-time and intermittent employment)*

| | Number of permanent positions requested and approved | Requested | Approved in annual budget | Actual employment |
|---|---|---|---|---|
| 1959 | 327 | 318.9 | 318.9 | 314.6 |
| 1960 | 326 | 317.1 | 317.1 | 306.3 |
| 1961 | 324 | 315.7 | 315.7 | 309.9 |
| 1962 | 323 | 314.7 | 314.7 | 306.5 |
| 1963 | 323 | 314.2 | 314.2 | 306.4 |

NET COST OF WITHIN-GRADE PROMOTIONS

The estimated net cost for within-grade promotions in 1965 (including step increases for wage-board employees) is $13,637. The turnover pattern at the Gallery due to the broad range in types and grades of positions does not result in savings sufficient to cover the full cost of within-grade and step promotions. The amount requested is derived from an analysis of each of the some 300 positions and present incumbents. This analysis takes into consideration the incumbent's past service at the Gallery, his age, general health, prospects for promotion, and the date his next within-grade or step promotion will be due.

INCREASES IN PERSONNEL BENEFITS

The cost of payments to the retirement and life insurance funds, and FICA taxes during the past year amounted to 6.8 percent of the paid employment in permanent positions. Applying this percentage to the paid employment in permanent positions for 1965, estimated at $1,700,000, gives a total for these three benefits of $116,000—$2,600 over the current-year figure. The remainder of the $4,000 increase is to cover the reimbursement to the employees' compensation fund, as required by Public Law 86–767, approved September 30, 1960, for payments from the fund made to Gallery employees during 1963. Due to the inability of the Department of Labor to make separate reports to the Gallery in prior years, the amounts of compensation payments from December 1, 1960, through fiscal year 1962, were billed to the Smithsonian Institution. Therefore, no amount was included in the 1964 appropriation for reimbursement to the fund.

HOLIDAY PAY FOR INAUGURATION DAY

Under the gallery's policy of closing to the public only on New Year's Day and Christmas, the building will be open on Inauguration Day. Premium pay for those employees required to be on duty is estimated at $2,800.

FOREIGN LANGUAGE EDITION OF GALLERY INFORMATION BOOKLET

Since World War II, Washington has become the "capital of the free world." This prominence in world affairs has resulted in an ever-increasing number of foreign visitors to the city and to the gallery as official guests of the Government, members of international organizations and professional associations, or tourists. For those visitors who do not speak or read the English language there is in Washington very little information available to them about the cultural and historical sights in our Capital City. In recognition of this condition, the gallery had printed, from savings in fiscal year 1962, a Spanish edition of its information booklet. The demand for this edition by visitors from Spanish-speaking countries justifies the printing of the booklet in an additional foreign language. This courtesy to foreign visitors is found in most of the great museums of other countries.

REPLACEMENT OF EQUIPMENT

Ten years ago a representative of the Bureau of the Budget recommended that a base amount be established in the Gallery's budget to cover the replacement of equipment items which could not reasonably be foreseen a year in advance. Accordingly, an amount of $1,500 was set as this base which was subsequently raised to $2,500. With the aging of equipment purchased new 23 years ago and with the increase in prices since the amount was established, $2,500 for this item is no longer a valid figure. The book value of capitalized equipment (equipment purchased at a unit cost of $50 or more) was $195,266.52 as of July 1, 1963. In addition, there are many items of hand tools and small pieces of office equipment in use which are not included in this figure. As a more realistic estimate of the annual amount required for unforeseen replacement of equipment items, we are requesting an increase in the base figure from $2,500 to $5,000.

INCREASE IN SAVINGS FROM DELAYS IN FILLING VACANT POSITIONS

Lapses (delays in filling vacant positions and leave without pay) for the current year are estimated at 16.3 man-years, and for fiscal year 1965 lapses are estimated at 17.3 man-years. This increase in lapses (reduction in employment in permanent positions) results in a saving of $7,608. The average number of employees in permanent positions is estimated at 308.7 in both 1964 and 1965, notwithstanding the new position justified in 2 above.

ONE LESS COMPENSABLE DAY

There are 262 compensable days in the current fiscal year; whereas, 1965 has only 261 compensable days. The 1 less day results in a saving of $6,000.

DECREASE IN BUILDING REPAIRS

In the current year $79,500 is allotted for completion of the renovation of the skylight area of the building. The net saving on building items in 1965 is $73,500 after offsetting the two new items explained below:

(a) *Elevator maintenance contract*

All three passenger elevators in the Gallery have now been converted to automatic operation. To maintain the automatic devices which operate the elevators, special skills, not employed at the Gallery, are required. The guarantee on the last elevator converted will expire in September 1964. After several years of experience with automatic elevators, we have concluded that an annual service and maintenance contract with a qualified commercial company is the most satisfactory and economical method of assuring the efficient and troublefree operation of this equipment. The amount of such a contract covering the three elevators is estimated at $3,000, based on an informal quotation from an elevator company.

(b) *Repointing of joints in dome of building*

There are approximately 5,000 lineal feet of joints between the marble blocks in the dome of the Gallery building. The caulking in these joints is in need of replacement after exposure to the elements for the 24 years since they were installed. The cost of labor and materials for this work is estimated at 60 cents per lineal foot of joint, or a total of $3,000.

STATUS OF PROGRAM

CHANGES IN MANAGEMENT REQUIREMENT

The average employment in 1963 (including the man-year equivalent of part-time and intermittent employment) was 307—5.4 man-years under the approved figure of 312.4. Savings from this reduced level of employment amounted to $26,600. Three thousand dollars of this amount was returned to the Treasury at the end of the year. The remaining $23,600 was used to help pay 1963 salary increases, the cost of an extra holiday on December 24, 1962, unplanned overtime due to an insufficient number of guards, and increased heating costs due to the severe winter. Planned average employment for 1964 and 1965 is 313.4 including two new positions in the Extension Service for the current year, and the one new research assistant requested for 1965. The prospect of being able to maintain this level is good as more veterans are becoming available for guard positions

upon their military retirement after 20 years of active service. Maintenance of employment at the planned level is imperative to reduce overtime work necessitated by insufficient guards, and to adequately protect the Nation's art treasures.

Funds were provided in 1963 and 1964 for the complete renovation of the more than 2½ acres of skylight on the Gallery building. The amount allotted for this project in the 1964 budget is $79,500. In 1965 all obligations will be for normal recurring expenses except for an item of $3,000 for the repointing of the marble dome of the building, and $8,000 for a foreign language edition of the Gallery Information Booklet.

ACCESSIONS

During the fiscal year 1963 there were 56 accessions by gifts, including 12 paintings, 1 sculpture, and 43 graphic arts.

SPECIAL EXHIBITIONS

The following exhibitions were held at the National Gallery of Art during the fiscal year 1963:

"Exhibition of the Collection of Mr. and Mrs. Andre Meyer"—continued from previous fiscal year through July 8, 1962.

"Prints with Color" from the Rosenwald collection—continued from previous fiscal year through August 23, 1962.

"Lithographs by George Bellows" from the Mellon, Rosenwald, and Addie Burr Clark memorial collections—continued from previous fiscal year through October 16, 1962.

"Water Colors by Winslow Homer from the Collection of Mrs. Charles R. Henschel"—July 6 through September 12, 1962.

"Etchings and Lithographs by Edouard Manet" from the Rosenwald collection—August 24 through December 13, 1962.

"A General Selection of Material from the Index of American Design"—September 21, 1962, to continue into the next fiscal year.

"American Prints Today, 1962" sponsored by the Print Council of America—September 23 through October 14, 1962.

"Drawings from the National Gallery of Art Collections"—October 27, 1962, through March 17, 1963.

"Etchings by G. B. Tiepolo, G. D. Tiepolo, and Canaletto" from the Rosenwald collection—October 27, 1962, through June 11, 1963.

"Old Master Drawings" from the collection of the Duke of Devonshire at Chatsworth—October 27, 1962, through November 25, 1962.

"A Selection of Christmas Prints" from the National Gallery of Art collections—December 14, 1962, through February 26, 1963.

"John Gadsby Chapman, A Retrospective Exhibition" from 21 public collections and private lenders—December 16, 1962, through January 13, 1963.

"Mona Lisa" by Leonardo da Vinci, lent to the President of the United States and the American people by the Government of the French Republic—January 8 through February 3, 1963.

"Jacques Callot": A selection of prints from the collections of Rudolf L. Baumfeld and Lessing J. Rosenwald—February 3 through March 17, 1963.

"Hercules and the Hydra" and "Hercules and Antaeus" by Antonio del Pollaiuolo, lent by the Republic of Italy—February 4 through February 10, 1963.

"Industry and Ingenuity" from the Index of American Design—February 27 through May 2, 1963.

"Landscape Prints" from the Rosenwald Collection—May 2, 1963, to continue into the next fiscal year.

"Prints and Drawings by Mary Cassatt" from the Rosenwald Collection—June 13, 1963, to continue into the next fiscal year.

Exhibitions of recent accessions: "Oysters" by Manet, continued from previous fiscal year through August 9, 1962; "Street in Venice" by Sargent, August 10 through September 13, 1962; "Duke of Wellington" by Goya, November 19 through December 27, 1962; "The Lute Player" by Gentileschi, April 5 through May 13, 1963: "Joris W. Vezeler and Margaretha Boghe, wife of Joris W. Vezeler" by Joos van Cleve, June 21, 1963, to be continued into the next fiscal year.

CURATORIAL SERVICES

Advice was given regarding 1,716 works of art brought to the Gallery for expert opinion and 25 visits to collections were made by members of the staff in connection with offers of gifts. About 4,350 inquiries, many of them requiring research,

were answered verbally and by letter. The material in the "Index of American Design" was studied during the year by 502 persons doing special research or seeking material for use by designers, and for publication.

### EXTENSION SERVICE

This service circulates to the public the traveling exhibits, Gallery films, and slide lecture sets. There are 27 traveling exhibits in circulation, lent free of charge except for transportation charges. These were circulated in 230 bookings and were seen by an estimated 115,000 viewers. Two special exhibits were prepared and circulated by other agencies in 32 bookings and were seen by an estimated 16,000 viewers. Two films were circulated in 152 bookings and were seen by an estimated 45,600 viewers. A total of 1,065 sets of slide lectures on a variety of subjects were circulated in 2,749 bookings and seen by approximately 164,940 viewers. The Extension Service, this year, reached approximately 384,560 persons, an increase over last year of 143,710.

### EDUCATION OFFICE

The staff of the educational office continued to give daily tours and talks in the galleries, morning and afternoon, throughout the year. The attendance for the scheduled tours was 38,837. Lectures, conferences, and tours given by special appointment served 16,567 visitors. There were 52 Sunday auditorium lectures illustrated with art films or slides, attended by 14,209 persons. Members of the educational office gave 35 radio broadcasts during the year; 33 were newly prepared talks and 2 were recordings from prior years.

### LIBRARY ACQUISITIONS

During the year the gallery library acquired without expense to the Government 944 books, 1,182 pamphlets, and 1,485 periodicals. The library now has 20,324 books and 15,893 pamphlets.

### PHOTOGRAPHIC LABORATORY

The photographic laboratory of the gallery made 4,910 color slides, 277 black and white slides, 1,561 negatives, 599 color transparencies; and infrared and ultraviolet photographs, in addition to the prints required for study work and sale to the public.

### CONCERTS

The Sunday evening concerts in the east garden court, which are provided from private funds, were continued throughout the year. These concerts are free to the public.

### ATTENDANCE AND MAINTENANCE

The attendance during the fiscal year 1963 was 1,793,500, a daily average of 4,941. During the fiscal year 1962 the total number of visitors to the gallery was 1,332,506. The increase in the past year was in large measure due to the exhibition of the Mona Lisa for a period of 27 days. In that period alone the total attendance was 673,872. The gallery was open to the public every day of the year except Christmas and New Year's Day. The gallery as a whole was maintained at a standard in keeping with the conditions of the gift of the building and the initial collection of works of art.

NATIONAL GALLERY OF ART—SALARIES AND EXPENSES

*Obligations by object classification*

| | | 1963 actual | 1964 estimate | 1965 estimate |
|---|---|---|---|---|
| 11 | Personnel compensation | $1,638,936 | $1,736,000 | $1,766,000 |
| 12 | Personnel benefits | 121,734 | 130,000 | 134,000 |
| 21 | Travel and transportation of persons | 5,022 | 7,000 | 7,000 |
| 22 | Transportation of things | 607 | 800 | 800 |
| 23 | Rent, communications, and utilities | 136,278 | 138,700 | 138,700 |
| 24 | Printing and reproductions | 14,454 | 10,000 | 18,000 |
| 25 | Other services | 118,878 | 109,500 | 36,000 |
| 26 | Supplies and materials | 49,544 | 41,500 | 41,500 |
| 31 | Equipment | 9,872 | 2,500 | 5,000 |
| 32 | Lands and structures | 15,411 | | |
| 40 | Grants and fixed charges | 33 | | |
| | Total obligations | 2,110,769 | 2,176,000 | 2,147,000 |

PROPOSED PROGRAM FOR 1965

Chairman HAYDEN. Mr. Feidler, would you please discuss the planned program of the National Gallery of Art during the coming fiscal year?

Mr. FEIDLER. I have a statement I would like to make, sir. I am the Administrator of the National Gallery of Art. Our Director, Mr. John Walker, who is unavoidably out of the country has asked me to express his regrets that he is not able to be here this morning.

The 1965 appropriation requested for "Salaries and expenses, National Gallery of Art," is $2,147,000, which, compared with the 1964 estimated obligations of $2,176,000, represents a decrease of $29,000.

BUDGET REDUCTIONS

The following reductions in 1965 make possible this net decrease:

(1) $79,500 is allotted in the current year for the completion of the 2-year project of renovating the skylight roof of the gallery building; inasmuch as the program will be completed this year this item does not reappear in 1965;

(2) $7,600 is saved by a reduction in average employment; and

(3) $6,000 results from there being only 261 compensable days in 1965 compared with the 262 days in the current year.

BUDGET INCREASES

Offsetting these decreases (which total $93,100), there are the following increases which total $64,100:

(1) $41,800 results from higher salaries and personnel benefits due to pay reaises not subject to administrative control;

(2) A $2,500 increase in the amount provided for replacement of equipment; and

(3) $8,000 for printing a foreign language edition of the Gallery Information Booklet.

FOREIGN LANGUAGE EDITION OF GALLERY INFORMATION BOOKLET

If I may expand on that a moment, sir. For years and years, of course, we have had a foreign language edition of the Gallery Information Booklet which we can give to all people.

Chairman HAYDEN. In what language is that?

Mr. FEIDLER. We have had one for years in English. In almost every gallery in the world, foreign visitors who come are given an information booklet in their own language.

This is true in the great galleries of Europe. A couple of years ago, we experimented with a Spanish-speaking booklet. This has been of such great use to us and has received so many fine comments from people who have visited us from South America and Central America that we felt we ought to do something of the same kind for the benefit of the people coming from Europe.

This foreign language booklet which we now propose, the $8,000 we now propose, will be in either French of German. We are not sure yet. We are conducting a little program to see which one would do the most good and result in the greatest use of the gallery.

### FRENCH- AND GERMAN-SPEAKING VISITORS

Chairman HAYDEN. Do you have more visitors from the French-speaking or from the German-speaking countries?

Mr. FEIDLER. It may be that more people will come from Europe who are able to speak French than are able to speak German, or vice versa. We are not sure yet. We are doing a little spot checking on it. It is very close, incidentally, as to which one would be the most used.

### ELEVATOR MAINTENANCE AND BUILDING REPAIR

The next item is $3,000 for maintenance of three elevators under an annual service contract. Our last elevator has a guarantee that runs out this year and we feel that we had better get a contract for servicing, automatic elevators being what they are.

Item No. 5, $3,000 for repointing the joints between the marble blocks forming the dome of the building. This has not been done since the building was built 20 years ago.

### ADDITIONAL RESEARCH ASSISTANT

And No. 6, $5,800 for the salary of an additional research assistant.

There has been no increase in the professional staff of the gallery since 1958, although the collection of gallery-owned paintings has grown by 47 percent since then. Also, attendance, the number of temporary exhibitions, and the number of public inquiries requiring professional knowledge to answer have increased markedly since 1958.

The new research assistant will work in the field of American art. We are increasing our American collection as rapidly as is possible and without lowering our standards of quality. I do want to emphasize, that while this position will raise the authorized number of permanent positions from 325 to 326, the total amount of money requested for personnel compensation will support an average of only 308 and a fraction, 308.7, the same as estimated for the current year.

Thank you, sir.

Chairman HAYDEN. We thank you for your appearance.

SMITHSONIAN INSTITUTION

## STATEMENT OF DR. S. DILLON RIPLEY, SECRETARY; JAMES BRADLEY, ASSISTANT SECRETARY; DR. T. DALE STEWART, ACTING ASSISTANT SECRETARY; AND MISS MARIA HOEMANN, BUDGET OFFICER

1965 BUDGET REQUEST

Chairman HAYDEN. All right, gentlemen.

Mr. BRADLEY. Senator, may I introduce Dr. S. Dillon Ripley, the new Secretary of the Smithsonian Institution. Mr name is James Bradley. I am an Assistant Secretary. We have here Dr. T. Dale Stewart, Acting Assistant Secretary, and in the back is Miss Maria Hoemann, our budget officer.

Chairman HAYDEN. I will place in the record a general statement, together with items of specific information which have been furnished to the committee in connection with the budget request, fiscal year 1965, of the Smithsonian Institution.

(The material referred to follows:)

GENERAL STATEMENT

The Smithsonian Institution was created by act of Congress, approved August 10, 1846, "for the increase and diffusion of knowledge among men." Under the terms of its broad charter, the Institution conducts well-defined scholarly research activities in various areas. For example, through its Astrophysical Observatory, the Smithsonian conducts very special research in many phases of astrophysics. Because of the expertness of our staff and the current importance of this area of study, the scientific world looks to the Institution for basic research in this field. The extensive collections of the U.S. National Museum are used by our scientists and historians as well as by visitors to further research in the fields of biology, geology, anthropology, American history, aeronautics and technology. Each year the Smithsonian publishes the results of scientific investigations here and elsewhere and also answers thousands of questions in the fields of science, technology, history, and art by letter, telephone, and consultation, or by personal examination of the collections. In fiscal year 1963 approximately 485,000 such requests for information were answered, an increase of 90,000 over the previous year.

In addition to its research functions, the Smithsonian administers what is probably the world's largest museum complex, comprising three museums of science, technology, and history; three art galleries; and the National Zoological Park. It preserves and protects for our citizens many of the irreplaceable treasures of the American people. Public interest in our museums continues to grow as evidenced by the large increase in the number of visitors. During fiscal year 1963 more than 10,309,000 persons visited the Smithsonian buildings on the Mall (exclusive of the National Gallery of Art). This was over 1,386,000 more than the previous year.

The appropriation request for 1965 for "Salaries and expenses" represents an increase of $1,670,000 over the amount appropriated for 1964. The principal increases are for the operation, maintenance, and protection of the new Museum of History and Technology Building; advancing certain scientific research programs for which enlarged and improved quarters in the additions to the Natural History Building have recently been completed and more are now under construction; contributing to scientific research in the national space program and oceanography; providing a limited additional staff for the recently authorized National Portrait Gallery and the National Collection of Fine Arts to prepare their collections for exhibition in the old Civil Service Commission Building now in process of renovation; and for mandatory salary and wage increases.

During fiscal year 1963 the east wing of the Natural History Building was occupied, and construction of the west wing is in progress. These much needed additions will give the staff of the Museum of Natural History additional improved quarters for the conduct of scientific research. The Museum of History and Technology is being dedicated this month. Ten of the total of fifty halls will be

opened immediately. The remaining halls will be ready for the public as installation of exhibits is completed.

The 1965 requests reflects an increase of $1,364,000 to complete the planning for the construction of a National Air and Space Building. Planning was started with funds amounting to $511,000 appropriated in fiscal year 1964. This building will provide suitable areas to display the national collection of historic air and spacecraft as well as parking facilities for 1,400 cars and fallout shelter.

The justifications which follow also include $1 million to complete the remodeling of the old Civil Service Commission Building for art gallery purposes.

The Smithsonian Institution is requesting $1,776,000 to continue the 10-year program of constructing, remodeling, and equipping the buildings and other exhibit facilities at the National Zoological Park.

### Schedule of Renovation of Exhibits

In 1965 the Smithsonian will continue its program of revitalizing the exhibits in the U.S. National Museum. This program, which was begun in 1954, has continued at a steady rate with an average appropriation of $474,800. The amount required for fiscal year 1965 is $330,000, or a reduction of $125,000 from the amount appropriated in fiscal year 1964. This reduction is the result of rescheduling the number of exhibit halls to be under construction so that fewer exhibit areas will be closed to the public.

#### COMPLETED AND OPENED TO THE PUBLIC BY END OF 1963

1. First Ladies Hall
2. The first American Indian Hall
3. North American Mammals Hall
4. Latin American Archeology Hall
5. Bird Hall
6. American Cultural History Hall
7. Power Machinery Hall
8. The second American Indian Hall
9. Health Hall
10. Military History Hall
11. Printing Arts Hall
12. Gems and Minerals Hall
13. Textiles Hall (first floor)
14. Jade Room
15. World of Mammals Hall
16. Agriculture Hall
17. Fossil Fishes and Amphibians Hal
18. Textiles Hall (second floor)
19. Medicine, Dentistry, and Pharmacy Hall
20. Fossil Plants and Invertebrates Hall
21. The first North American Archeology Hall
22. Numismatics Hall
23. Petroleum Hall
24. Prehistoric Mammals Hall
25. Peoples of the Pacific Hall
26. The second North American Archeology Hall
27. Ocean Life Hall (first floor)
28. Dinosaur Hall

#### HALLS TO BE COMPLETED AND OPENED TO THE PUBLIC BY THE END OF 1964

1. Vertebrate Anatomy Hall.
2. Peoples of Asia and Africa Hall.

#### CONSTRUCTION PARTIALLY COMPLETED BY THE END OF 1964

1. Reptiles and Fishes Hall.
2. Physical Anthropology Hall.
3. Old World Archeology Hall.

#### DURING 1964, DRAWINGS WILL BE FINISHED AND CONTRACTS AWARDED FOR HALLS

1. Economic Geology Hall.
2. Physical Geology Hall.

#### PROJECTS FOR 1965

1. Animals of the ice age.

REHABILITATION PROJECTS, FISCAL YEAR 1965

The following are the rehabilitation projects for fiscal year 1965, except the one for air conditioning the National Air and Space Building. The justification for this project is set forth under the activity "Museum operations."

| | |
|---|---|
| Museum of Natural History (1911) | $27,000 |
| 1. Modification of space for Supply Division located in Natural History Building. | |
| Arts and Industries Building (1881) | 72,000 |
| 1. Replacement of floors in 4 main halls (east, north, west, south). | |
| Smithsonian Building (1855) | 20,000 |
| 1. Alterations to the electrical systems to provide increased capacity for additional service required for improvement of space, additional staff, and expansion of research activities. | |
| National Air and Space Building (1917) | 23,000 |
| 1. Replacement of roof and repainting exterior surfaces. | |
| Freer Gallery of Art Building (1921) | 18,000 |
| 1. Repair interior stonework, repoint joints, and clean surfaces, and repaint corridors | 15,000 |
| 2. Initial steps in modernization of controls and safety devices on one freight elevator | 3,000 |
| Silver Hill Facility (1952) | 40,000 |
| 1. Installation of a sanitary sewer system and restroom facilities | 15,000 |
| 2. Installation of a security fence for improved control to reduce possibility of damage or loss of valuable museum objects | 25,000 |
| Total, rehabilitation projects | 200,000 |

WORK PERFORMED UNDER GRANTS AND CONTRACTS FROM FEDERAL AGENCIES

GRANTS

There are listed below the agencies and the amounts of grants which the Smithsonian received in 1963 as well as an estimate of the amounts to be received in 1964:

| Federal agency | Actual, fiscal year 1963 | Estimate, fiscal year 1964 |
|---|---|---|
| National Aeronautics and Space Administration | $3,595,500 | $4,431,000 |
| National Institutes of Health | 271,655 | 10,285 |
| National Science Foundation | 427,550 | 1,700,000 |
| Department of Defense | 200,000 | 33,795 |
| Federal Aviation Agency | 50,000 | ---------- |
| Total grants | 4,544,705 | 6,175,080 |

The above grants from funds available to Federal agencies enables the Smithsonian Institution to collaborate with such agencies in scientific research including the satellite tracking program, the science information exchange, marine mollusks of Polynesia, lower cretaceous ostracoda of Israel, Shanidar IV–VI Neanderthals, pelagic phosphorous metabolism, tertiary echinoids of the Eastern United States and the Caribbean, revision of the genera of Paleozoic bryozoa, sharks of the tropical Pacific Ocean, cultural patterns of southwest Virginia, structures of Nan Madol, mammals and their ectoparasites from Iran, study of the biochemical effects of ionizing and nonionizing radiation on plant metabolism during development, and chronic disease in relation to social efficiency.

CONTRACTS

The Smithsonian Institution also performs research for Federal agencies on reimbursable contracts. The agencies for whom this work was performed in 1963 and the amount of reimbursement, together with an estimate for 1964, follows:

| Federal agency | Actual, fiscal year 1963 | Estimate, fiscal year 1964 |
|---|---|---|
| Atomic Energy Commission | $137,714 | $15,097 |
| Department of Defense | 251,403 | 546,000 |
| Veterans' Administration | 65,000 | |
| National Aeronautics and Space Administration | 1,646,263 | 1,411,700 |
| Total, reimbursable contracts | 2,100,380 | 1,972,797 |

This research was primarily in the fields of astrophysics, astronomy, psychology, aeronautics, shark repellants, plant physiology, and marine fauna of the Pacific area.

JUSTIFICATION STATEMENT

Chairman HAYDEN. The Smithsonian Institution's budget estimate for salaries and expenses is $14,794,000, an increase of $1,670,000 over the appropriations for fiscal year 1964. The justifications for this estimate will be included in the record.

(The statements referred to follow:)

SALARIES AND EXPENSES

| *Leadoff tabular statement* | *Amount* |
|---|---|
| Appropriation act, 1964 | $13,124,000 |
| Budget estimate, 1965 | 14,794,000 |
| Increase, 1965 | 1,670,000 |

*Summary of increases, 1965*

| | Amount |
|---|---|
| 1. To provide for step increases and other personnel costs: | |
| Employees compensation fund payments | $10,000 |
| Step increases | 279,000 |
| Pay increases effective Jan. 5, 1964 | 155,000 |
| Wage board increases effective Dec. 9, 1962, for which funds are not now provided | 73,000 |
| Less reduction of 1 day's pay above 52-week base | −25,000 |
| Subtotal | 492,000 |
| 2. To provide for the protection, operation, and maintenance of the Museum of History and Technology Building | 753,000 |
| Less nonrecurring cost for transportation, other services, and equipment | −207,000 |
| Subtotal | 546,000 |
| 3. To provide more adequately for documentation and preservation of museum collections and related activities | 35,000 |
| Less nonrecurring cost of other services and equipment | −514,000 |
| Subtotal | −479,000 |
| 4. 1965 rehabilitation of buildings and modernization of exhibits programs | 530,000 |
| Less 1964 programs | −655,000 |
| Subtotal | −125,000 |
| 5. Planning and preparation of art objects prior to move into the F Street galleries | 70,600 |
| 6. To provide more adequately for the Smithsonian's Astrophysical Observatory's research program | 200,900 |
| 7. For increased responsibilities of scientific research activities in Canal Zone biological area, and International Exchange Service | 11,000 |
| 8. Strengthening efforts in oceanography | 247,700 |
| 9. Expansion into new areas of research in natural history | 81,700 |
| 10. Protection, operation, and maintenance of additions to the Natural History Building | 214,500 |
| 11. Protection, operation, and maintenance of all other Smithsonian buildings | 220,000 |
| 12. Air conditioning the National Air and Space Building | 80,000 |
| 13. Increased administrative services costs | 109,600 |
| Net increase, 1965 | 1,670,000 |

*Comparative summary of the 1964 appropriation with the 1965 estimates*

| | 1964 estimate | 1965 estimate | Increase or decrease | |
|---|---|---|---|---|
| | | | Step increases and other personnel costs [1] | Program |
| 1. Museum exhibitions (including art): | | | | |
| Museum of History and Technology | $2,196,000 | $1,769,000 | $52,000 | [2]—$479,000 |
| Museum of Natural History | 1,366,000 | 1,276,000 | 35,000 | [3]—125,000 |
| National Air Museum | 301,000 | 314,000 | 13,000 | |
| National Armed Forces Museum Advisory Board | 33,000 | 33,000 | | |
| National Collection of Fine Arts | 143,000 | 187,100 | 7,000 | [4] 37,100 |
| National Portrait Gallery | 44,000 | 80,500 | 3,000 | [5] 33,500 |
| Total, museum exhibitions (including art) | 4,083,000 | 3,659,600 | 110,000 | −533,400 |
| 2. Scientific research and exchange of scientific information: | | | | |
| Astrophysical Observatory | 979,000 | 1,205,900 | 26,000 | [6] 200,900 |
| Bureau of American Ethnology | 127,000 | 132,000 | 5,000 | |
| Canal Zone Biological Area | 138,000 | 148,000 | 4,000 | [7] 6,000 |
| International Exchange Service | 108,000 | 113,000 | | [8] 5,000 |
| Museum of Natural History | 1,415,000 | 1,799,400 | 55,000 | [9] 329,400 |
| Museum of History and Technology | 809,000 | 839,000 | 30,000 | |
| Total, scientific research and exchange of scientific information | 3,576,000 | 4,237,300 | 120,000 | 541,300 |
| 3. Buildings Management Department: | | | | |
| Museum of History and Technology Building | 1,015,000 | 1,622,000 | 61,000 | 546,000 |
| Natural History Building | 1,480,000 | 1,780,500 | 86,000 | 214,500 |
| Smithsonian Building | 176,000 | 237,000 | 11,000 | 50,000 |
| Arts and Industries Building | 391,000 | 508,000 | 23,000 | 94,000 |
| All other buildings | 495,000 | 600,000 | 29,000 | 76,000 |
| Rehabilitation of buildings | 200,000 | *280,000 | | 80,000 |
| Total, Buildings Management Department | 3,757,000 | 5,027,500 | 210,000 | [10] 1,060,500 |
| 4. General administration: | | | | |
| Management | 276,000 | 324,000 | 11,000 | 37,000 |
| Administrative services | 1,432,000 | 1,545,600 | 41,000 | 72,600 |
| Total, general administration | 1,708,000 | 1,869,600 | 52,000 | [11] 109,600 |
| Grand total | 13,124,000 | 14,794,000 | [1] 492,000 | 1,178,000 |

*Includes $80,000 for air conditioning the National Air and Space Building.

NOTE.—For justification see below:

## JUSTIFICATIONS

### PERSONNEL COSTS

(1) A net increase of $492,000 is requested for step increases and other personnel costs. Consideration was given to a nonrecurring amount of $25,000 for the cost of 1 day's regular pay above the 52-week base.

*Need for increase.*—This increase would be used (1) to pay the fiscal year 1965 costs of salary increases granted the general schedule employees on January 5, 1964, Compensation Schedule II of the Federal Salary Reform Act of 1962, Public Law 87–793, approved October 11, 1962 ($155,000); (2) to pay the full-year cost of salary increases granted to wage-board employees on December 9, 1962, as determined through analysis of all wage-board positions with consideration being given to representative lapse factors ($73,000); (3) for reimbursement for total benefits and other payments made from the employees compensation fund during fiscal year 1963 ($10,000); and (4) to pay for step increases in accordance with the Classification Act Amendments of 1962 (76 Stat. 844) ($279,000). The latter sum includes the portion of the fiscal year 1965 step increases to be paid in that year, the carryover cost from fiscal year 1964, and the total amount of step increases which the Institution will absorb in fiscal year 1964, but does not have in the fiscal year 1965 base. The absorption of these costs in fiscal year 1964 is possible because of savings which will occur as a result of the delayed opening of

the Museum of History and Technology Building. The apparent cost was determined through a position-by-position study, and has been reduced to real cost by offsets due to 15 percent of the employees being separated before they receive their step increase, and the salaries of those employees averaging $270 above the base of the grade.

All operations of the Smithsonian Institution have been carefully reviewed to determine whether any absorption of the above amount is possible in fiscal year 1965. No savings can be effected without seriously curtailing the daily operations of the Institution and impairing such authorized programs as staffing and servicing the new east wing of the Natural History Building and the new Museum of History and Technology.

MUSEUM OF HISTORY AND TECHNOLOGY

2. The net decrease of $479,000 for the Museum of History and Technology reflects a decrease of nonrecurring initial services, furnishings, and equipment provided in fiscal year 1964 in the amount of $514,000, offset by an increase of $35,000 for the curatorial departments.

*Need for increase.*—The increase would be used to employ additional staff to meet the heavy demands in the new building by the public for service in subjects presented in the building such as manufactures, heavy industries, and electricity; and to facilitate the use of the collections through restoration, documentation, and preservation of specimens.

*Plan of work.*—To employ one curator, one associate curator, two museum technicians, and two clerical employees and to provide for personnel benefits.

MUSEUM OF NATURAL HISTORY

3. The decrease of $125,000 for the Museum of Natural History is the result of rescheduling the number of exhibit halls to be under construction in the modernization of exhibits program so that fewer exhibit areas will be closed to the public.

NATIONAL COLLECTION OF FINE ARTS

(4) An increase of $37,100 for the National Collection of Fine Arts is requested to continue the expanded program of planning and preparing its valuable works of art for exhibition in the remodeled building.

*Need for increase.*—This increase would be used for additional specialists in art to inventory the permanent collections, prepare working catalogs, undertake restoration programs, plan continuing exhibits, and set up schedules of temporary shows.

*Plan of work.*—To employ one head curator (sculptures), one associate curator, and two clerical assistants; and to provide funds for personnel benefits; travel; contractual services; supplies and materials; and equipment.

NATIONAL PORTRAIT GALLERY

(5) An increase of $33,500 is requested for the National Portrait Gallery for planning and preparing for the exhibition of portraits and other objects in the new F Street building.

*Need for increase.*—This increase would be used for additional staffing and related expenses for extensive research, location, and acquisition of portraits and sculptures; restoration and care of portraits and other art objection which are acquired; the establishment of records of materials available immediately for transfer to the gallery or which may be available for loan or later acquisition; the preparation of a detailed script for each exhibit hall of the gallery, and the acquisition of related reference works.

*Plan of work.*—To provide for one curator, one research assistant, and two clerical employees, personnel benefits, travel, transportation of things, supplies and materials, and equipment.

ASTROPHYSICAL OBSERVATORY

(6) The Astrophysical Observatory requires $200,900 to further its unique scientific program involving specialized functions of widely acclaimed importance in this space age. This increase includes $94,000 for equipment which is a nonrecurring expense in the next fiscal year.

*Need for increase.*—Additional staff and related costs would be used to improve the Astrophysical Observatory's research in meteoritic science, cometry, X and gamma radiation, upper atmospheric phenomena, geodesy and celestial mechanics, properties of extraterrestrial material collected by the earth, solar and stellar astrophysics, the role of radiant energy in the maintenance of life processes, and in the spectral quality of solar radiation pertaining to specific biological processes.

*Plan of work.*—To provide for one astronomer, one electrical engineer, one mathematician, and one technician; full-year cost of scintific positions (2 man-years) financed on a part-year basis in fiscal year 1964; personnel benefits; travel; rent, communications, and utilities; other services; supplies and materials; and equipment.

CANAL ZONE BIOLOGICAL AREA

(7) An increase of $6,000 is requested for the Canal Zone Biological Area for expenses related to the maintenance and operation of this research facility uniquely suited for biological research on the tropics.

*Need for increase.*—The increase would be used for rental of more space for the enlarged staff and for the storage, packing, and unpacking of scientific equipment handled for visiting scientists; and supplies and materials to conduct research activities.

*Plan of work.*—To provide for travel, transportation of things, rent, supplies and materials, and equipment.

INTERNATIONAL EXCHANGE SERVICE

(8) An increase of $5,000 is requested for the accelerated program of the International Exchange Service which is the official U.S. agency for the exchange of governmental, scientific, and literary publications.

*Need for increase.*—This increase would be used to employ an additional clerk to perform the extra duties which will be required because of the increase in specialized scientific documents received at the Smithsonian for transmission throughout the world.

*Plan of work.*—To provide for one clerical assistant.

MUSEUM OF NATURAL HISTORY

(9) The U.S. National Museum will require a total of $329,400 for its Museum of Natural History, including $247,700 for the oceanography program as part of the plan of the Federal Council on Oceanography, and $81,700 to further research in those fields of science explained below in which the museum conspicuously lacks an adequate number of specialists to cover all critical areas. This increase includes $120,000 which is nonrecurring in the next fiscal year.

*Need for increase.*—(*a*) Additional professional, subprofessional, and clerical staff are needed to help the Smithsonian Institution keep pace with its ever-increasing responsibilities to supply information on the nature and identity of the organisms received from federally financed marine expeditions. Scientists working in this program provide identifications of marine organisms and prepare monographs to keep colleagues in Federal agencies and universities advised of findings. A part of the increase for the oceanography program is for equipment to be used aboard ship during oceanographic research expeditions.

(*b*) The Museum of Natural History has excellent facilities at long last to house in a more adequate manner its great collections and to conduct its research. This reemphasizes the importance of being able to use these scientific tools in a way that will be suitable to the needs of the scientific community. Specialists and supporting staff are needed to further research in botany, paleontology, paleobotany, and entomology. This natural history research includes inventorying, identifying, and classifying specimens and answering a large volume of information requests. A modest increase in travel funds is needed to permit the regular Museum of Natural History staff to undertake field investigations, study comparative materials at other museums and universities, consult with colleagues on special problems, and inspect and evaluate proposed donations to the collections. Additional funds for contractual services, supplies, and equipment are also required for the regular research programs of the Museum of Natural History.

*Plan of work.*—(*a*) To provide for five zoologists, three geologists, one botanist, and three museum specialists for the oceanography program; full-year cost of scientific positions (4 man-years) financed on a part-year basis in fiscal year 1964, personnel benefits, travel, other services, and equipment.

(*b*) To provide for one chemist, one botanist, one technician, and five clerks; and personnel benefits, travel, other services, supplies and materials, and equipment.

BUILDINGS MANAGEMENT DEPARTMENT

(10) A net increase of $1,060,500 is requested for the buildings management department to continue to provide protection, operation, and maintenance services for the several Smithsonian buildings, and to air-condition the National Air and Space Building.

*Need for increase.*—The major portion of this increase would be used for additional staff and related expenses to provide adequate buildings services for the Museum of History and Technology and the Natural History Buildings; for enlarging the research facilities of the Division of Radiation and Organisms; and making necessary repairs and alterations in the Arts and Industries Building to provide office space for staff now housed in temporary Government quarters and to alleviate crowded conditions in other Smithsonian buildings.

Funds will also be used to air-condition the National Air and Space Building. Installation of air conditioning in this building will contribute in a very substantial way to the comfort of the great crowds of visitors who tour it each year. It will also assist in the preservation of valuable specimens and objects which are placed on exhibition.

*Plan of work.*—To provide for the full-year cost of 17 guards, laborers, and mechanics (9 man-years) financed on a part-year basis in fiscal year 1964 and 182 positions (164 man-years in fiscal year 1965) to employ guards, laborers, and mechanics; provide benefits; electricity (including air conditioning), gas, and steam, and communications; contractual services for maintenance, repair, and inspection of elevators and escalators; for fire, smoke, and intrusion systems; cleaning supplies, uniforms, lamps, hardware, plumbing materials, paints, and lumber; and equipment such as desks, chairs, tables, file cases, steel storage shelving, lockers, projection equipment, pistols and holsters, wheelchairs, fire extinguishers, electrical fixtures, and new flooring.

GENERAL ADMINISTRATION

(11) An increase of $109,600 is requested for general administration to handle the increased workload in the administrative and service units of the Institution because of the step-up in museum activities and the accelerated art gallery and scientific research programs.

*Need for increase.*—The major portion of the increase would be used for additional staff to meet the increased demands for library, photographic, editorial, and fiscal services. Additional funds are also required for office supplies, and equipment.

*Plan of work.*—To provide for one special assistant, one editor, two library assistants, five clerical assistants, one management analyst, and 3 photographers; personnel benefits; other services; supplies and materials; and equipment.

## SALARIES AND EXPENSES

*Report on number of permanent positions by organizational unit*

| | 1963 actual | 1964 estimate | 1965 estimate | Increase 1965 over 1964 |
|---|---|---|---|---|
| Astrophysical Observatory | 57 | 64 | 68 | 4 |
| Buildings Management Department | 509 | 535 | 717 | 182 |
| Bureau of American Ethnology | 11 | 13 | 13 | 0 |
| Canal Zone Biological Area | 13 | 18 | 18 | 0 |
| International Exchange Service | 12 | 10 | 11 | 1 |
| Management | 23 | 23 | 27 | 4 |
| Museum of History and Technology | 247 | 239 | 244 | 5 |
| Museum of Natural History | 266 | 286 | 307 | 21 |
| National Air Museum | 26 | 28 | 28 | 0 |
| National Armed Forces Museum Advisory Board | 2 | 2 | 2 | 0 |
| National Collection of Fine Arts | 17 | 16 | 20 | 4 |
| National Portrait Gallery | 5 | 5 | 9 | 4 |
| Other general services | 104 | 109 | 118 | 9 |
| Total | 1,292 | 1,348 | 1,582 | 234 |

NOTE.—In addition to the above, each year the Smithsonian employs the full-time equivalent of 18 temporary employees.

*Report of obligations by objects*

| Object classification | 1963 actual | 1964 estimate | 1965 estimate | Increase or decrease, 1965 over 1964 |
|---|---|---|---|---|
| 11 Personnel compensation | $6,968,000 | $8,179,000 | $9,634,000 | $1,455,000 |
| 12 Personnel benefits | 496,000 | 588,000 | 711,000 | 123,000 |
| 21 Travel and transportation of persons | 109,000 | 141,000 | 153,000 | 12,000 |
| 22 Transportation of things | 83,000 | 110,000 | 103,000 | −7,000 |
| 23 Rent, communications, and utilities | 429,000 | 650,000 | 779,000 | 129,000 |
| 24 Printing and reproduction | 263,000 | 263,000 | 263,000 | |
| 25 Other services | 975,000 | 1,148,000 | 1,210,000 | 62,000 |
| 26 Supplies and materials | 515,000 | 544,000 | 664,000 | 120,000 |
| 31 Equipment | 1,041,000 | 1,613,000 | 1,277,000 | −336,000 |
| Total obligations | 10,879,000 | 13,236,000 | 14,794,000 | 1,558,000 |
| Appropriation adjustments: | | | | |
| Proposed supplemental for cost of wage board salary increases | | −112,000 | | +112,000 |
| Unobligated balance lapsing | +121,000 | | | |
| Appropriation (adjusted) or estimate | 11,000,000 | 13,124,000 | 14,794,000 | 1,670,000 |

HIGHLIGHT STATEMENT

Chairman HAYDEN. Dr. Ripley, this is the first opportunity you have had to appear before this committee, having just taken over as Secretary of the Smithsonian Institution. The committee welcomes you. On behalf of the committee I assure you of our cooperation at any time you believe we can be helpful.

If you have a statement concerning your budget for the coming year, the committee will be glad to have you present it, either in full or by highlighting as you think best. Inasmuch as you do have a sizable increase in your salaries and expense items, I trust that you will at least indicate the major areas where the increases are required.

Dr. RIPLEY. Yes; thank you, Senator, I have a statement which I would like to offer for the record and I would like to highlight it, if I may.

Chairman HAYDEN. All right, sir.

STATEMENT BY DR. S. DILLON RIPLEY, SECRETARY, SMITHSONIAN INSTITUTION

Mr. Chairman and members of the committee, I should like to give you a brief résumé of my background, since this is my first appearance before you. I am a former employee of the Smithsonian. In 1942, I served as Assistant Curator of Birds. I was born in New York, graduated from Yale, and received a Ph. D. in zoology from Harvard in 1943. Prior to assuming my new duties as Secretary of the Smithsonian on February 1, 1964, I was director of the Peabody Museum of Natural History and professor in the biology department at Yale University. I have also been a faculty member at Harvard and served as a professor of ornithology at Yale. For about 4 years, I served on the staff of the Academy of Natural Sciences of Philadelphia and for 2 years with the American Museum of Natural History in New York. I have participated in seven zoological expeditions and have written five books and a number of technical articles. At present I am president of the International Council for Bird Preservation and trustee or member of a number of scientific and academic institutions.

Turning now to the scope of the Smithsonian's operations, I find that it includes the newly opened Museum of History and Technology, the Museum of Natural History, the National Air and Space Museum, the Bureau of American Ethnology, the International Exchange Service, the Astrophysical Observatory, the Canal Zone Biological Area, the National Collection of Fine Arts, the Freer Gallery of Art, the National Portrait Gallery, and the National Zoological Park.

When the Institution opened in 1846, its first Secretary, Joseph Henry, said that the Institution's motto, "for the increase and diffusion of knowledge among men," implied research for increase of knowledge and education for diffusion of knowledge. The Smithsonian, with its traditional responsibilities among the

arts as well as the sciences, should continue to maintain its leadership in education and scholarship in America. Museums and their related laboratories are just entering a new era. In a time of crisis in education, museum resources are being drawn upon as never before for general education. Thirty years ago, a mere 15 percent of museums in America were connected with education in some form. This marked a catastrophic decline from a hundred years ago when museums housed the genesis of scientific research in the Western World. Today, over 90 percent of museums are involved in education, ranging from simple school extension programs to postgraduate fellowships

It has always been my belief that a museum should be considered as a center of knowledge, as a company of scholars—not a rather fossilized exhibit of curiosities. But it is not enough for a museum to act as a center of information, investigation, and research. There is the further significant responsibility to present fully to the public the cultural and scientific knowledge held in its collections. Current estimates that total annual attendance in all American museums will exceed 200 million clearly reflect this urgent need. It is this approach which can give the true value to the vast collections in the museums of the Nation and give meaning to the superb collection of over 57 million specimens at the Smithsonian. The facilities and resources at the Smithsonian are tremendous, and it is hard to realize that it was only back in 1803 that President Jefferson invited Dr. Caspar Wistar to study the newly acquired mammoth bones where they were spread out in the unfinished East Room of the White House Yet, with the phenomenal growth of the Smithsonian have come almost awe-inspiring opportunities and challenge.

The Smithsonian Institution with its widening assortment of resources, museums, galleries, priceless collections, with its superb technical and research staff, is one of the Nation's most significant assets. The Smithsonian can and should be a tremendous force for education in the world today. In the realm of the humanities, in art and the history of our culture, as well as in a variety of sciences ranging from the study of the ocean to astrophysics and the natural sciences, it is implicit that the Smithsonian should assume a commanding position in education and science as well as leadership in the museum world. We cannot afford to overlook any possibility of increasing and diffusing knowledge among our people, young and old, at all levels—from exhibits and museum lectures and demonstrations to postgraduate specialized research and the publication of the findings of scientific research. Museums and their technical resources are important as never before in these days of crisis in education.

I hope it may be possible to broaden the Smithsonian's traditional cooperation with museums and professional staffs throughout the world. I will do my utmost to help the Smithsonian to realize fully its responsibilities, reflecting not only here but also abroad our deep concern for the well-being and advancement of the museum and its associated professions.

Before discussing the "Salaries and expenses" request, I should like to discuss briefly our request for planning and construction funds.

A request for $1,364,000 is included to complete the planning for the construction of a National Air and Space Museum. In fiscal year 1964, the Smithsonian Institution was given an appropriation of $511,000 to begin this planning. The building will provide suitable areas to display the national collection of historic air and space craft, and will provide parking facilities for 1,400 visitor cars and a fallout shelter. The great public interest in air and space exhibitions is demonstrated by the large crowds visiting the existing small temporary hangar building located behind the Smithsonian Building. During the past fiscal year 2,673,618 persons visited this building, coming from every State in the Union.

We are requesting $1 million to complete the remodeling of the old Civil Service Commission Building for use by Smithsonian art and portrait galleries. This amount covers that portion of the work which could be deferred until fiscal year 1965 without slowing down the project. The 1964 appropriation was reduced by $1 million by the Congress in anticipation that the amount would be requested for fiscal year 1965. It is now expected that the invitation for bids for this remodeling will be readvertised in June of this year.

We are requesting $1,776,000 to continue the third year of the 10-year program of constructing, remodeling, and equipping the buildings and other facilities at the National Zoological Park. The amount requested for fiscal year 1965 includes a winter house for delicate hoofed stock and a modern sewer system in the National Zoological Park which is essential to eliminate pollution of Rock Creek, as urged by health authorities and the House Committee on Public Works.

Construction of the new Museum of History and Technology is substantially completed, and the building was dedicated on January 22 by the President. Ten

of a total of 50 halls were opened to the public immediately. New halls will be opened as soon as the installation of exhibits is completed. We estimate that each year 5 million visitors from every State in the Union will want to view this magnificent new building with its outstanding exhibits. Fifty-five thousand visitors were counted on Sunday, January 26, 1964, as they entered the doors of this new building.

Construction of the west wing of the Natural History Building is now underway and is expected to be completed in the fall of 1965. This will provide laboratory space for research in natural history and space for the national collections of scientific specimens.

Now I should like to summarize the programs under the "Salaries and expenses" appropriation.

Our appropriation request for 1965 represents an increase of $1,670,000 over the amount appropriated for 1964. The principal increases are for the following purposes:

1. The operation, maintenance, and protection of the newly dedicated Museum of History and Technology Building.
2. Advancing certain scientific research programs for which enlarged and improved quarters in the additions to the Museum of Natural History have recently been completed or are now under construction.
3. Contributing to basic scientific research in the national space program and oceanography.
4. Providing limited additional staff for the recently authorized National Portrait Gallery and for the National Collection of Fine Arts, and to prepare collections for exhibition in the old Civil Service Commission Building.
5. Required salary and wage increases.

Almost two-thirds of the net increase, or specifically $1,060,500, is required by the Buildings Management Department, principally for the protection, maintenance, and operation of the new Museum of History and Technology and the new east and west wings of the Natural History Building. I should say that we have had an independent survey by a competent team from the General Services Administration to assure that our estimates of staffing and other requirements for the operation of this building are correct. Because of the urgency of holding both manpower and other costs to an absolute minimum, reductions have been made in the estimates before you below the levels generally agreed upon as needed by these experts.

Included in the above increase is $80,000 to air condition the National Air and Space Building. We find that air conditioning is essential to the comfort of the great crowds of visitors who tour this small building each year. In addition, air conditioning will undoubtedly assist in our efforts to preserve valuable specimens and objects which are placed on exhibition.

You will note that there is a net decrease of $479,000 in the program costs for the Museum of History and Technology. This decrease is caused by the nonrecurring costs of initial museum furnishings and equipment provided in fiscal year 1964 in the amount of $514,000, as offset by an increase of $35,000 in fiscal year 1965 for the curatorial staff.

We believe we must request additional funds for the research programs. The Museum of Natural History requires a total of $329,400 including $247,700 for the oceanography program and $81,700 to further research in natural history fields where for years we have not had sufficient specialists. This type of research can only be accomplished at the Smithsonian, where our unique national collections of scientific specimens are housed. The Astrophysical Observatory requires $200,900 for its scientific research program of widely recognized importance in the space age.

The National Portrait Gallery and the National Collection of Fine Arts will require $70,600 to permit additions to their small staffs to continue a program of planning for the exhibition of valuable works of art and portraits of great significance to America in the remodeled building.

An increase of $492,000 is requested for within-grade salary increases and other required personnel costs. All operations of the Smithsonian Institution have been carefully reviewed to determine whether any absorption of the above amount is possible in fiscal year 1965. We believe no savings can be effected without seriously curtailing the daily operations of the Institution and impairing such authorized programs as staffing and servicing the new Museum of History and Technology and the new east and west wings of the Natural History Building.

In conclusion, may I point out that the total appropriation to the Smithsonian Institution for the present year (including an anticipated supplemental of

$67,000) is $20,442,000. We are asking for $18,934,000 in the 1965 budget before you, or $1,508,000 less than appropriated this year The reduction is due to the nonrecurrence of the construction appropriation for remodeling the old Civil Service Building.

Thank you very much for allowing me to make this statement. I shall be happy to try to answer any questions you may have about our activities. With your permission, I shall call on Mr. Bradley, Assistant Secretary, if necessary, for assistance in providing information to the committee.

### Background Résumé of Secretary of the Smithsonian Institute

Dr. Ripley. Mr. Chairman and members of the committee, I should like to give you a brief résumé of my background, since this is my first appearance before you. I am a former employee of the Smithsonian. In 1942, I served as Assistant Curator of Birds. I was born in New York, graduated from Yale, and received a Ph. D. in zoology from Harvard in 1943.

Prior to assuming my new duties as Secretary of the Smithsonian on February 1, 1964, I was director of the Peabody Museum of Natural History at Yale University, and a professor in the biology department there. I have also been a faculty member at Harvard and served as a professor of ornithology at Yale.

For about 4 years, I served on the staff of the Academy of Natural Sciences of Philadelphia and for 2 years with the American Museum of Natural History in New York. I have participated in seven zoological expeditions, primarily in southeast Asia, which is my particular interest.

I have written five books and a number of technical articles. At present I am president of the International Council for Bird Preservation and trustee or member of a number of scientific and academic institutions.

### Scope of Smithsonian's Operations

Turning now to the scope of the Smithsonian's operations, I find that it includes the newly opened Museum of History and Technology, the Museum of Natural History, the National Air and Space Museum, the Bureau of American Ethnology, the International Exchange Service, the Astrophysical Observatory, the Canal Zone Biological Area, the National Collection of Fine Arts, the Freer Gallery of Art, the National Portrait Gallery, and the National Zoological Park.

### Smithsonian Tradition

When the Institution opened in 1846, its first Secretary, Joseph Henry, said that the Institution's motto, "for the increase and diffusion of knowledge among men," implied research for increase of knowledge and education for diffusion of knowledge. The Smithsonian, with its traditional responsibilities among the arts as well as the sciences, should continue and expand its leadership in education and scholarship in America.

It has always been my belief that a museum should be considered as a center of knowledge, a company of scholars—not a rather fossilized exhibit of curiosities. But it is not enough for a museum to act as a center of information, investigation, and research. There is the further significant responsibility to present fully to the public the cultural and scientific knowledge held in its collections.

The Smithsonian Institution with its widening assortment of resources, museums, galleries, priceless collections, with its superb technical and research staff, is one of the Nation's most significant assets. The Smithsonian can and should be a tremendous force for education in the world today.

### Smithsonian's Traditional Cooperation

I hope it may be possible to broaden the Smithsonian's traditional cooperation with museums, universities, and professional staffs throughout the world. I will do my utmost to help the Smithsonian to realize fully its responsibilities, reflecting not only here, but also abroad, our deep concern for the well-being and advancement of the museum and its associated professions.

### Planning and Construction

In regard to our request for planning and construction funds, a request for $1,364,000 is included to complete the planning for the construction of a National Air and Space Museum. In fiscal year 1964, the Smithsonian Institution was given an appropriation of $511,000 to begin this planning. The building will provide suitable areas to display the national collection of historic air and spacecraft, and will provide parking facilities for 1,400 visitor cars and a fallout shelter. The great public interest in air and space exhibitions is demonstrated by the large crowds visiting the existing small temporary hangar building located behind the classic old Smithsonian Building. During the past fiscal year 2,673,618 persons visited this building, coming from every State in the Union.

### Art and Portrait Galleries

We are requesting $1 million to complete the remodeling of the old Civil Service Commission Building for use by Smithsonian art and portrait galleries. This amount covers that portion of the work which could be deferred until fiscal year 1965 without slowing down the project.

Chairman Hayden. The Smithsonian Institution requests an appropriation of $1 million to complete the remodeling of the Civil Service Commission Building for art gallery purposes. This is the remainder of the full amount which was asked last year but which was not appropriated. The justifications will be placed in the record.

(The justifications referred to follow:)

*Remodeling of Civil Service Commission Building*

| | |
|---|---|
| Appropriated, fiscal year 1962 (planning) | $400,000 |
| Appropriated, fiscal year 1964 | 5,465,000 |
| Estimate, 1965 | 1,000,000 |

An appropriation of $1 million for completion of the remodeling of the old Civil Service Commission Building (hereinafter referred to as the F Street Building) is urgently sought by the Board of Regents of the Smithsonian Institution. The appropriation is needed now to complete the contract work of remodeling the building for art gallery purposes for which $5,465,000 was appropriated for fiscal year 1964. Work on this project will begin within 4 months and is expected to be completed in the spring of 1966.

The National Collection of Fine Arts and the National Portrait Gallery will share the building. The National Collection of Fine Arts is now crowded into

the Natural History Museum. Space is so limited that many works of art cannot be displayed to the interested public but must be placed in storage. The National Collection of Fine Arts collections are principally the works of American art. The National Gallery of Art is distinctly different in that its collections are principally European masterpieces of art. The Freer Gallery of Art is markedly different in that its collections are principally works of oriental art.

Included in the National Collection of Fine Arts is the John Gellatly collection, reputed to be worth over $10 million. Other notable collections are the Evans collection and the Ranger bequest which contain over 200 works of art. The National Collection of Fine Arts possesses a sufficient number of important works of art which are now on exhibition, in storage, or on temporary loan, to provide immediately a magnificent offering of American paintings, works of sculpture, and decorative art objects in the F Street building.

The National Collection of Fine Arts serves not only Washington but also art galleries throughout the country by circulating fine exhibitions for special shows. Proper facilities are not now available to compose and prepare such exhibitions for this nationwide cultural program. The F Street building will provide the necessary space.

The other gallery authorized to use this building is the National Portrait Gallery, created by the act of April 27, 1962. This gallery is authorized to exhibit portraits of men and women who have made significant contributions to the history, development, and culture of the United States. Thus, the portrait gallery will become a unique national hall of history and culture. There is no similar national gallery in this country.

Collections of portraits are being held by the National Gallery of Art and the National Collection of Fine Arts for the National Portrait Gallery. As soon as the gallery becomes a reality through the remodeling of this building, other collections and individual portraits will be offered as gifts to the National Portrait Gallery by both private and public agencies and individuals in order that the persons portrayed may be considered for a place of honor in the National Portrait Gallery.

The total amount of $6,465,000 needed for remodeling was requested of the Congress in the 1964 budget estimate. Since a portion of the work could be deferred until fiscal year 1965 without slowing down the project, the Congress reduced the 1964 estimate by $1 million with the understanding that it would be requested for fiscal year 1965.

The funds for remodeling are to be used for such items as replacement of the roof, repairs and additions to the plumbing, mechanical and electrical equipment, replacement of plaster and woodwork where necessary, and other building repairs and additions required for remodeling the building, originally constructed in the mid-1800's, for art gallery purposes. No substantial change in the exterior appearance is planned. The estimated cost of constructing a comparable new building is in the range of $25 million.

### Bids for Remodeling

Chairman Hayden. The committee will be glad to have such comments as you care to make with regard to this item.

Dr. Ripley. The 1964 appropriation was reduced by $1 million by the Congress in anticipation that the amount would be requested for fiscal year 1965. It is now expected that the invitation for bids for this remodeling will be readvertised in June of this year.

The appropriation of $1 million is urgently needed to finance items which could be deferred from the main contract such as lighting fixtures, finish painting, double-glazed windows, rain downspouts, the exterior truck ramp, and similar items.

### National Zoological Park

We are requesting $1,776,000 to continue the third year of the 10-year program of constructing, remodeling, and equipping the buildings and other facilities at the National Zoological Park. The amount requested for fiscal year 1965 includes a winter house for delicate

hoofed herd and similar animals, and a modern sewer system in the National Zoological Park which is essential to eliminate pollution of Rock Creek, as urged by health authorities and the House Committee on Public Works.

Chairman HAYDEN. Funds in the amount of $1,776,000 are requested for construction at the National Zoological Park. This sum is necessary to perform the third year of the 10-year program as capital improvement plan for this year. The justifications will be placed in the record.

(The justifications referred to follow:)

*Construction and improvements*

| | |
|---|---|
| Appropriated, fiscal year 1963 | $1,275,000 |
| Appropriated, fiscal year 1964 | 1,275,000 |
| Estimate, 1965 | 1,776,000 |

An appropriation of $1,776,000 is requested for the third year's capital improvement projects at the National Zoological Park and for advance planning for future projects.

Funds totaling $1,275,000 in fiscal year 1963 and $1,275,000 in fiscal year 1964 have been appropriated for the first 2 years of a 10-year program of capital improvements at the National Zoological Park.

In fiscal year 1963, provision was made for relocation of the east-west road from Connecticut Avenue to Harvard Street, construction of the bird flight cage, and remodeling the bird exhibition building.

The fiscal year 1964 projects include improvement of the principal pedestrian entrance to the park off Connecticut Avenue; exhibits in a 10-acre area of hardy hoofed stock and deer; a property yard for open and dry storage; two paved parking areas; an incinerator; regrading and surfacing of zoo service roadways; and planning and installation of utilities.

There follows a summary of the projects to be undertaken with fiscal year 1965 funds:

| | | |
|---|---|---|
| Planning: | | |
| Detailed plans and designs for fiscal year 1966 projects | $145,000 | |
| Advance planning and consultation for fiscal year 1967 projects | 30,000 | |
| | | $175,000 |
| Construction: | | |
| Exhibits—Winter house for delicate-hoofed stock | 825,000 | |
| Parking area (lot C) | 153,500 | |
| Utilities | 91,500 | |
| | | 1,070,000 |
| Sewerage system | | 531,000 |
| Total | | 1,776,000 |
| Planning | | 175,000 |

*Detailed plans and designs for fiscal year 1966, $135,000.*—Detailed plans will be made for the development of an aquatic mammal area for the exhibition of seals, sea lions, walruses, otters, tapirs, and other aquatic mammals. Through cooperation with the Department of the Interior, duplication will be avoided in this exhibit and the National Aquarium. These exhibits will be outside with minimum shelter for the animals. All viewing by the public will be from the outside.

Detailed plans will also be made for the animal hospital and other items in the service area based upon advanced planning which was accomplished last year; and other items such as parking lots, the vehicular roadway, and picnic areas.

*Smithsonian Institution expenses, $10,000.*—It is estimated that the Smithsonian Institution will require $10,000 in fiscal year 1965 for travel expenses and the services of consultants in connection with this program.

*Advance planning and consultation for fiscal year 1967, $30,000.*—Advance plans will be made for constructing new bear and goat exhibits, remodeling the elephant

house and yards, and continuing work in the service area (animal hospital and research area, gardener's area and greenhouse). Advance planning of the service roadway and utilities assigned to this phase will continue.

Construction ..... $1,070,000

*Exhibits, $825,000.*—Exhibit facilities for one group of hoofed stock will be constructed in an area of approximately 4 acres between the hardy hoofed stock area for which funds were provided in fiscal year 1964 and the birdhouse area constructed in fiscal year 1963. This area consists of three buildings and paddock complex. One of the buildings will be temperature-controlled for the reversal of the tropical and arctic animals. The hoofed stock from tropical areas will be exhibited in all three buildings during the winter months.

It is planned to exhibit family groups of 12 or more different kinds of tropical antelope which cannot be adapted for all-year, outdoor exhibition in the Washington climate. The most conspicuous example is the giraffe.

The buildings, totaling 17,500 square feet, will have seven large, inside, viewing pens; visitor facilities; and service areas. In outside paddocks, with minimum shelter, members of the oxen, goat, and antelope families from cold areas will be exhibited during the winter. In the summer months, the tropical and the arctic animals will be reversed in these buildings. The roofs of these buildings will serve as a viewing platform, overlooking the outdoor paddocks.

*Parking area (lot C), $153,500.*—A parking lot and access roads will be constructed. This lot will accommodate approximately 220 visitor automobiles.

*Utilities, $91,500.*—The utility system will be expanded in relation to other construction. Included are electricity, water, service sewers, and heating.

*Sewerage system, $531,000*

A total of $531,000 will be required in fiscal year 1965 to modernize the main sewerage system in the National Zoological Park, including main storm sewers, sanitary sewers, and animal waste sewers, by installing the necessary trunklines and connecting to the District of Columbia sewer system. This modernization will result in the cessation of pollution of Rock Creek by the National Zoological Park.

### 1965 Program for the Zoo

Chairman Hayden. Will you please advise the committee what is planned in the way of work at the National Zoological Park during the coming year?

Dr. Ripley. Yes, sir. Under this appropriation for the year 1963 we have constructed a bird flight cage and remodeled the bird exhibition building. A road has been completed and the bird building will be completed this year. For fiscal year 1964 the provisions include improvement of the principal pedestrian entrance off Connecticut Avenue, an exhibit in a 10-acre area for hardy hoofed stock and deer, appropriate automotbile parking areas, incinerator, and installation of utilities.

For the fiscal year 1965, we are requesting funds for the construction of the winterhouse for the delicate hoofed stock who cannot take our Washington winters; an automobile parking lot, installation of utilities; and the installation of the new sewerage system which is essential to eliminate pollution of Rock Creek, as urged by health authorities and the House Committee on Public Works.

### National Air Museum Building

Chairman Hyaden. In fiscal year 1965 there is necessary $1,364,000 to complete plans and specifications for the National Air Museum Building; $511,000 was appropriated for this purpose last year. The justifications for the request will be printed in the record.

(The justifications referred to follow:)

*Planning*

| | |
|---|---|
| Appropriated, fiscal year 1964 | $511,000 |
| Estimate, 1965 | 1,364,000 |

An appropriation of $1,364,000 is requested for fiscal year 1965 to complete the plans and specifications for the National Air Museum Building. This amount is needed in order that the preparation of plans and specifications, begun with the appropriation of $511,000 in fiscal year 1964, can be continued without delay or interruption. This constitutes a first step in providing a suitable exhibition building to display the outstanding national collection of historic and modern air and space craft. The initial design work has been started.

Planning was authorized by the act of September 6, 1958. The Mall site for the building was designated by that same act, after extensive congressional hearings. The fiscal year 1964 appropriation is for financing the first year of 2 years' planning.

The tremendous public interest in air and space exhibitions is demonstrated by the great crowds visiting the existing small hangar building (1917 vintage) located behind the Smithsonian Building. This small exhibit, representing less than 5 percent of the air and space collections, was visited during fiscal year 1963 by 2,673,618 visitors from every State in the Union. On a single day, more than 36,000 visitors crowded through the building.

The new air museum building will make possible for the first time a comprehensive presentation to the public of notable air and space exhibits. It will also present the mathematics, physics, fuel chemistry, metallurgy, and broad engineering bases of aeronautics and space exploration. The educational and inspirational character of these exhibits will find a response in the interest and enthusiasm of American youth in air and space science. Only by the display of original aircraft and space craft from the national collections can the millions of visitors each year relive notable events in our national history, and gain an understanding of the underlying principles of science and technology which have made possible our achievements in this field. Included in the Air Museum's historic collections are the original Wright Brothers' "Kitty Hawk" Flyer, original Goddard Rockets, the "Spirit of St. Louis," "Freedom 7," and "Friendship 7."

The requested appropriation is the amount necessary to complete the preparation of plans, including drawings and specifications, only. The Institution will employ expert consultants to assist the planning and museum staffs in matters of historical and technical interpretation of flight history, technological and scientific developments, and museum practices. Completion of the planning will be the first step in providing ultimately a suitable exhibition building to display the national collection of historic air and spacecraft. Construction funds will be requested in fiscal year 1966.

### Underground Parking Garage

Chairman Hayden. The total estimated cost of this planning has increased by $235,000 since your budget presentation last March. At that time the total estimated cost was $1,640,000, whereas the appropriation you request for 1965 brings the total cost to $1,875,000. Will you please advise the committee the reasons for this increase.

Dr. Ripley. I would like to ask Mr. Bradley, the Assistant Secretary, if he could discuss this.

Mr. Bradley. Mr. Chairman, the principal reason for the increase is to include in the project a large underground garage for the parking of 1,400 visitor cars. As an offset to that cost, we reduced somewhat the length of the structure above the ground. The net result was that the total project cost of approximately $39,500,000 has gone up to $41,920,000, overall.

The planning cost went up with the increase in the construction cost and with the more difficult construction that is involved in going underground, where they will be up against hydrostatic conditions.

So, Mr. Chairman, the planning had to go up to $1,875,000. We already have $511,000 under contract with the architect, the drawings have been started, and the work is well underway. Therefore, we must request $1,364,000 to complete the planning.

LOCATION OF PROPOSED GARAGE

Chairman HAYDEN. It is not clear to me where this is to be located.

Mr. BRADLEY. Yes, sir. We have a three-block site from Fourth to Seventh and from Independence to Jefferson, immediately south of the National Gallery of Art, which will fill out the Smithsonian complex of buildings. Under the new National Air Museum we will construct a two-story underground garage for the visitors who will come there.

Chairman HAYDEN. As it is now, they are badly crowded and many of them cannot park their cars at any nearby place.

Mr. BRADLEY. That is certainly true, Senator.

Chairman HAYDEN. Do you have any further information?

MUSEUM OF HISTORY AND TECHNOLOGY AND NATURAL HISTORY BUILDING

Dr. RIPLEY. There are two smaller items I should mention: the construction of the new Museum of History and Technology and the new east and west wings of the Natural History Building. As you know, Senator, the Museum of History and Technology building is substantially completed and on January 22 was dedicated by President Johnson. The west wing of the Natural History Building is well underway and is expected to be completed in the fall of 1965.

I think that concludes my statement.

Chairman HAYDEN. We thank you very much.

## JOHN F. KENNEDY CENTER FOR THE PERFORMING ARTS

### STATEMENT OF ROGER L. STEVENS, CHAIRMAN OF THE BOARD OF TRUSTEES, JOHN F. KENNEDY CENTER FOR THE PERFORMING ARTS, ACCOMPANIED BY RALPH E. BECKER, GENERAL COUNSEL

1965 BUDGET REQUEST

Chairman HAYDEN. On January 23, 1964, the President approved Public Law 260 providing an appropriation of not to exceed $15,500,000 to the Board of Trustees of the John F. Kennedy Center for the Performing Arts to be matched by gifts, bequests, and devises. There has been submitted a supplemental estimate for fiscal year 1964 for the full amount. The justification will be printed in the record.

(The justification referred to follows.)

JUSTIFICATION STATEMENT

This proposed supplemental appropriation is the Federal Government's share of the cost of constructing the John F. Kennedy Center, as authorized by Public Law 88-260, approved January 23, 1964. These funds, if appropriated by the Congress, will become available to the Center's Board of Trustees when, and to the extent that, matching contributions are received from non-Federal sources.

The Trustees proposed to proceed promptly with the construction of the Center and have tentatively scheduled the opening for late in 1966 or early in 1967. This supplemental appropriation is requested at this time in order to permit advertising for construction bids for the superstructure of the building promptly after completion of plans and specifications in January 1965.

The act renamed the Center as the John F. Kennedy Center for the Performing Arts and directed the Board of Trustees to provide for a suitable memorial within the Center for the late President.

Appropriations up to $15,500,000 are authorized which will match gifts and pledges when converted to money or other assets held by the Trustees. This authorization is the basis for this request.

The act also authorized the Trustees to issue revenue bonds to the Secretary of the Treasury, to be repaid from revenues accruing to the Board. The bonds which are to be used for financing parking facilities for the Center may not exceed a face value of $15,400,000.

The estimated cost of the Kennedy Center is $44,839,238 exclusive of the site, as follows:

*Preliminary cost estimate*

[Estimates compiled by Severud-Elstad-Krueger Associates, Syska & Hennessy, Inc., and Construction Survey Corp.]

| | |
|---|---|
| Substructure, including 1,600-car garage: | |
| Structural | $5, 547, 855 |
| Mechanical | 4, 220, 000 |
| Architectural | 1, 337, 860 |
| Access roads, site work, landscaping, relocation of parkway | 997, 425 |
| Total estimated construction cost | 12, 103, 140 |
| Total, including construction cost, contingencies, engineering and architectural design, supervision, and administration | 13, 866, 238 |
| Superstructure: | |
| Structural | 4, 789, 200 |
| Mechanical | 10, 874, 750 |
| Architectural | 12, 167, 498 |
| Total estimated construction cost | 27, 831, 448 |
| Total, including construction cost, contingencies, engineering and architectural design, supervision and administration | 30, 973, 000 |
| Substructure and superstructure, total cost | 44, 839, 238 |

OUTLINE DESCRIPTION

SUBSTRUCTURE

Steel and reinforced concrete frame, stone facing, exterior, sprinklered, ventilated, and heated.

All building below and including level +38, access roads to parking facility, site work, landscaping, and relocation of Rock Creek and Potomac Parkway.

Includes:

1. Footings and foundations for entire building (including superstructure).
2. Three levels of parking for approximately 1,600 cars.
3. Two finished lobbies per floor with two escalators and two elevators each and toilet facilities.
4. Equipped mechanical and electrical rooms.
5. Subsurface service road and loading platforms.
6. Kitchen, freight, personnel and scenery elevators.
7. Structure of the three auditoria floors.
8. Understage of each auditorium.

9. Orchestra pits of each auditorium.
10. Space for stage entrances with offices, first aid rooms, dressing rooms for actors and musicians, chorus rooms, tuning rooms, stage hand and building personnel lockers and offices, wardrobe, and set storage areas.
11. Space for mechanical and electrical equipment rooms for superstructure, including refrigeration plant, fan rooms, and pumproom.

OUTLINE DESCRIPTION OF SUPERSTRUCTURE

Steel and reinforced concrete frame, marble exterior finish, bronze finish of window walls and exterior columns, completely air conditioned.

All building above and including the finishing of level +38.

Includes:

1. Entrance plaza, pools, fountains, and trees.
2. River terrace and podium—terrazzo finish.
3. Finishing of all areas below level +38 other than parking.
4. Two entrance galleries: 41 by 300 by 60 feet high each, marble finish.
5. Area suitable for memorial to President Kennedy.
6. Grand foyer: 45 by 630 by 60 feet high.
7. 2,750 seats, symphony hall and related facilities including offices, dressing rooms, rehearsal rooms, and storage areas etc.
8. 2,200 to 2,500-seat opera house to be used for grand opera, ballet, and musical comedy, and related facilities including offices, dressing rooms, rehearsal rooms, and storage areas, etc.
9. 1,100 to 1,200-seat theater to be used for drama, chamber opera, and recitals and related facilities including offices, dressing rooms, and storage areas, etc.
10. Projection rooms for each hall.
11. TV, radio, and light control rooms for each hall.
12. Public refreshment and reception rooms for each hall.
13. Elevators for public.
14. Opera and theater stage houses.
15. 500 seats, cafeteria-type restaurant and kitchen.
16. 150-seat restaurant with kitchen.
17. Multipurpose area on roof to be used for band concerts, exhibitions, experimental theater, children's theater, and receptions. Capacity approximately 2,500.
18. Fan rooms.
19. Electrical rooms.

FACT SHEET

Building dimensions:

To exterior walls and main roof, superstructure, 630 feet long, 300 feet wide, 69 feet high.
Penthouse, superstructure, 560 feet long, 230 feet wide, 26 feet high.
Parking facility, substructure, 700 feet long, 530 feet wide, 30 feet high.
Entrance plaza, 700 feet long, 125 feet wide.
River terrace, 700 feet long, 80 feet wide.
Side terraces (each), 300 feet long, 35 feet wide.

Building areas:

Substructure: 907,659 square feet.
Superstructure: 516,310 square feet.

Building volume:

Substructure: 9,461,314 cubic feet.
Superstructure: 17,202,620 cubic feet.

Total site area: ±17 acres of which approximately 8 acres are occupied by the building and 3½ acres are occupied by access roads.

Adjacent buildings: Kennedy Center 8 inches lower than Lincoln Memorial to the south.

The Center is being designed by architect Edward Durell Stone. It includes a 2,750-seat symphony hall, a 1,100 to 1,200 seat theater, and a 2,200 to 2,500 seat hall for opera, ballet, and musical theater. The design had been submitted to the late President Kennedy, former President Eisenhower, the Board of Trustees of the Center, the Commission of Fine Arts, the National Capital Planning Commission, the Cabinet, and the District of Columbia Board of Commissioners. In each instance the design met with enthusiastic approval.

The Center recently entered into an agreement with the General Services Administration, providing that GSA will serve as the agent for design and construction of the building. Standard GSA procedures will be followed, including the award of contracts on the basis of competitive bidding.

Architectural and engineering planning for the substructure will produce contract drawings by the end of October 1964 and construction may begin by the end of December 1964. Planning for the superstructure is estimated to be completed by the end of January 1965 and the contract could be awarded in March 1965. Construction is estimated to require approximately 2 years.

A letter from the architect is quoted below:

FEBRUARY 17, 1964.

Re John F. Kennedy Center.

DEAR MR. STEVENS: In response to your request for a time schedule for the design and commencement of construction of the John F. Kennedy Center for the Performing Arts, I submit the following:

Substructure: Working drawings completed by the end of October 1964. Construction to begin by the end of December 1964.

Superstructure: Working drawings completed by the end of January 1965. Contract could be awarded by the end of March 1965.

It should be understood, however, that this schedule is an absolute minimum and is the working procedure encountered with an individual client, and does not account for delays which may be met in dealing with Government agencies.

Sincerely,

EDWARD D. STONE.

The proposed parking facility of 1,600 cars to be located at the Center site will serve both patrons of the Center and transient parkers from the surrounding area. An economic and feasibility report prepared by the architect and consulting engineers concluded that a garage costing $13,866,238 would be repaid at 3 percent interest in 40 years with revenues derived from a charge of $1 per 12-hour period of parking. The present estimated cost of the substructure in the amount of $13,866,238 includes not only the garage but also foundation for the superstructure, vertical circulation, and space for mechanical services for the structure above. It is estimated that the substructure investment will be self-liquidating. On the basis of the favorable consultant's report on the parking garage, further study will be made of all costs and revenues in the light of the recent legislation. Determinations will be made as to the appropriate financing of the substructure from the interest-bearing bonds and from contributions; the period of repayment within the statutory limit of 50 years and with the agreement of the Secretary of the Treasury, the rate of interest as determined by the Secretary of the Treasury, and the scale of parking fees.

A statement of pledges and contributions received by the Board of Trustees as of February 14, 1964, is as follows:

JOHN F. KENNEDY CENTER FOR THE PERFORMING ARTS

*Statement of pledges and contributions for period from inception Apr. 1, 1959, to Feb. 14, 1964*

| | |
|---|---|
| Outstanding pledges | $7, 893, 861. 77 |
| Total cash income | 6, 076, 213. 88 |
| Total subscription on books | 13, 970, 075. 65 |
| Pledges from President's Business Committee (not yet received) | 181, 000. 00 |
| Total | 14, 151, 075. 65 |
| Deduct expenses to date | 1, 680, 466. 05 |
| Excess of subscriptions over expenses | 12, 470, 609. 60 |

It is estimated that the amount of cash contributions and the conversion of current and future pledges to cash will very nearly equal the appropriation limitation of $15,500,000 by the end of the fiscal year 1964 and will equal the limitation by the end of the calendar year 1964.

An estimate of the proposed income and expenses prepared for the Kennedy Center demonstrates that the Center will be operated without a deficit and without a request for an appropriation for operation and maintenance. The present plan is to rent the halls to organizations that wish to use them. There will be sufficient rentals to cover the Center's costs. It is recognized that a great number of theaters are operated in this country that have to pay interest and real estate taxes. The Kennedy Center is financially assisted by not being required to pay real estate taxes and by not being required to pay interest on a substantial portion of the capital investment.

Referring to financial accountability, the legislative history of the Kennedy Center Act states as follows:

"Since this bill provides for the expenditure of Federal funds in connection with the Center it is clear that the Director of the Bureau of the Budget and the Comptroller General must and do have authority to examine and audit the financial records of the Board for all purposes."

The communication from the President submitting for the consideration of the Congress this proposed supplemental appropriation for the Kennedy Center also transmitted a proposed supplemental appropriation in the amount of $3,300,000 for the National Capital Planning Commission for certain land acquisition. This is necessary to provide a parklike setting for the Center and to complete the acquisition of the site. Acquisition is a responsibility of the National Capital Planning Commission under the provisions of Public Law 85–874, the original authorization act, and section 2 of the act of June 6, 1924, 43 Stat. 463.

### Proposed Program for 1965

Chairman Hayden. The chairman of the board of trustees for the Kennedy Center is here to present the need for this appropriation. The committee will want to know what your plans are for this money. If you have a statement, we will be glad to have you read it or place it in the record.

Mr. Stevens. Mr. Chairman, I would like permission to file my statement together with the exhibits as part of the record and will spend a few minutes giving you the highlights.

### Statement of Roger L. Stevens, Chairman of the Board of Trustees, John F. Kennedy Center for the Performing Arts

Mr. Chairman, this is the first appearance of the John F. Kennedy Center for the Performing Arts before your committee. Accordingly, in presenting my testimony as Chairman of the Board of Trustees, I have furnished the committee with legislative, historical, and financial background of our institution created by Congress, from the date of organization up to the present time.

#### LEGISLATION OF THE CENTER

In particular, the history of this legislation is set forth in the hearings (Document 88–17) before the unprecedented joint session of the Committees on Public Works of the House of Representatives and the Senate relating to the renaming of the Center and authorizing an appropriation therefore and for other purposes. See also report of the House Committee on Public Works (H.R. 1050).

The bipartisan legislation which created the Center had its genesis under the Eisenhower administration. It was vigorously advocated by President Kennedy and has already received substantial encouragement from President Johnson.

Briefly, the act passed in 1958 designated the land upon which the Center should be constructed, and vested in a Board of Trustees the power to maintain and administer the Center.

For the information of this committee, we operate under the statutory powers given to us by Congress, bylaws which we have adopted, and officers whom we elect annually. They consists of a chairman, a vice chairman, secretary, treaurer, and general counsel. Of the 45 trustees, 3 are members of the U.S. Senate (Joseph S. Clark, Jr., J. William Fulbright, and Leverett Saltonstall), 3 are Members of the House of Representatives (Frank Thompson, Jr., James C. Wright, Jr., and Mrs. Charlotte T. Reid; previous to Mrs. Reid's appointment, Congressman Kearns served as a trustee), and other public officials; the Secretary of Health, Education, and Welfare, the Librarian of Congress, the Assistant Secretary of State for Public Affairs, the Chairman of the Commission of Fine Arts, the President of the Board of Commissioners of the District of Columbia, the chairman of the District of Columbia Recreation Board, the Director of the National Park Service, the Commissioner of the U.S. Office of Education, and the Secretary of the Smithsonian Institution. The private citizens are appointed by the President of the United States.

Since the 1958 act specified that all building funds must be raised by voluntary contributions, we have been fortunate in having the benefit of the generosity of my predecessor, Hon. L. Corrin Strong, who has contributed more than $800,000 specifically earmarked for administrative and fund-raising expenses.

CONCEPT

At the time of my appointment in November 1961, I discussed the project, the concept of the Center and its fund-raising program, with the late President Kennedy. We felt that the existing design, involving a $75 million building, was unnecessarily extravagant and Mr. Edward Durell Stone, our then architect-consultant, provided an alternative design costing $31 million for the superstructure. This latter design was enthusiastically accepted and approved by all of the appropriate agencies and officials.

You will be interested to know that at the time of this conference with our late President, he stated that funds for the parking facilities of the Center should not form a part of the fundraising campaign, and he emphasized the necessity for the Center to be in a parklike setting at the present site.

These and other matters relating to the Center's operations during this period are set out in the annual report for 1961–62 submitted to the Smithsonian Institution and marked "Exhibit A." I request that it be made a part of the record. (Retained in committee files.)

FUNDRAISING PROGRAMS

By November 1961 the Center had raised approximately $1.2 million. However, I am happy to report that since that time, through the dedicated efforts of many individuals, our funds, including bona fide pledges, have reached upward of $14 million. These funds have come from foundations, such as the Ford Foundation (on a 3-to-1 matching basis from private funds), the Rockefeller Foundation, and the Old Dominion (Mellon) Foundation, business, industry, labor, foreign governments, and the general public. A demonstration of the interest is the response of the schoolchildren who will be among the greatest beneficiaries of our efforts.

The major fundraising programs launched in the beginning of 1963 include the President's Business Committee, under the chairmanship of Ernest R. Breech; the Seat Endowment Committee, under the chairmanship of Edgar M. Bronfman; and the Special Gifts Committee. The compositions and goals of these committees are fully documented in our annual report for 1963 transmitted to the Smithsonian Institution. At this time I request that report, marked "Exhibit B," be made a part of the record. (Retained in committee files.)

KENNEDY CENTER ACT

Immediately following the assassination of our late President, a spontaneous movement spread throughout the country to make the National Cultural Center the official memorial to President Kennedy. The proposal, it was learned, met with the approval of the Kennedy family and was endorsed by President Johnson. The action taken by Congress in January of this year emphasized the nationwide feelin : that the Cultural Center was, indeed, the most appropriate memorial to a ma : who had held the arts in such high regard.

President Johnson signed the John F. Kennedy Center Act on January 23, 1964.

The following changes have now been enacted in the basic legislation:

First: The National Cultural Center is renamed the John F. Kennedy Center for the Performing Arts.

Second: In addition to the annual report submitted by the Center to the Smithsonian Institution, the Board of Trustees will submit a similar report to Congress.

Third: The Board is directed to provide within the Center a suitable memorial in honor of the late President, and must submit details of such a memorial to Congress. The memorial must be approved by the Board of Regents of the Smithsonian Institution.

Fourth: Federal funds are authorized to match, dollar for dollar, those raised by the voluntary contributions of the American public, the sum not to exceed $15.5 million. Pledges will not be matched until they have been reduced to money or other assets actually held by the Board.

Fifth: The Board is granted authority to issue revenue bonds to the Treasury payable from revenues accruing to the Board, up to a sum of $15.4 million. These bonds are for the purpose of financing adequate parking facilities for the Center, an underground garage to accommodate approximately 1,600 cars.

Sixth: The resolution authorizes the Secretary of the Treasury to accept on behalf of the United States any gift contributed in honor of President Kennedy, and to pay the money to such appropriation or other accounts, including appropriation accounts established pursuant to appropriations authorized by this act.

Seventh: The resolution provided that this Center shall be the sole national monument to the late President within the city of Washington and its environs.

### FUTURE FUNDRAISING

At the annual meeting of the Board of Trustees held on January 13, I was able to announce a revised fundraising goal as a result of the new legislation. In my opinion a further $6.5 million remains to be raised. This figure is comprised of $2.5 million expected to be raised in a single event to take place this year, details of which will be announced later; $1.5 million to be raised in the Greater Washington area; and $2.5 million from industry, labor, business, foundations, special gifts, and the general public.

On April 21, the World's Fair inaugural ball to be held in New York on the eve of the opening of the fair, will be held for the benefit of the Center's joint venture with the Metropolitan Opera Company, for a National Opera Company.

### FINANCIAL STATUS

I am offering a complete financial statement prepared by our certified public accountants, Seltzer & Addabbo, of Washington, D.C., which is marked "Exhibit C." I request that it be made a part of the record. (Retained in committee files.)

The highlights show that outstanding pledges and cash income as of January 31, total $13,920,611.49 and the deductible disbursements total $2,454,355.59, leaving a balance of subscriptions over disbursements of $11,466,255.90.

It is my opinion that the amount of cash contributions and the conversion of current and future pledges will very nearly equal the appropriation of $15.5 million by the end of the fiscal year 1964, and will equal the limitation by the end of the calendar year 1964.

As to the request for an appropriation from this committee, I would like to highlight a few matters set forth in the prepared justification statement. The requested supplemental appropriation is for the Federal Government's share of the cost of constructing the Center. These funds will become available to the Center when, and to the extent that, matching contributions are received from non-Federal sources.

The Board of Trustees proposes to proceed promptly with the construction of the Center, and has tentatively scheduled the opening for late 1966 or early 1967. As a matter of fact, we are proposing to break ground for the Center on May 29, 1964, President Kennedy's birthday.

This supplemental appropriation is requested at this time in order to permit advertising for construction bids for the superstructure of the building promptly after completion of plans and specifications in January 1965. This is more fully explained in exhibit D, which I request to be made a part of the record.

Appropriations up to $15.5 million are authorized which will match gifts and pledges when converted to money or other assets held by the trustees. This authorization is the basis for this request.

The act also authorized the trustees to issue revenue bonds to the Secretary of the Treasury, to be repaid from revenues accruing to the Board. The bonds which are to be used for financing parking facilities for the Center may not exceed a face value of $15.4 million.

The estimated cost of the Center is $44,839,238, exclusive of the site, which represents $30,973,000 for the superstructure, consisting of a 2,750-seat symphony hall, a 2,200- to 2,500-seat opera house and a 1,100- to 1,200-seat theater. There will also be a multiple-use roof area for band concerts, art exhibitions, theater-in-the-round, balls, and a children's theater. This area will have a capacity of approximately 2,500. The superstructure is more fully explained in exhibit D.

A prepared estimate of present income and expenses for the Center demonstrates it can be operated without a deficit and without a request for an appropriation for operation and maintenance.

I request that this estimate, marked "Exhibit E," be made a part of the record.

The substructure consists of a three-level underground garage for approximately 1,600 cars. This parking facility will serve both patrons of the Center and transient parkers from the surrounding area.

This is more fully explained in a statement by Edward Durell Stone, the architect, which is marked "Exhibit F" and which I request be made a part of the record.

The "Economic and Feasibility Report" prepared by Edward Durell Stone, Severud-Elstad-Krueger Associates, Moran, Proctor, Mueser & Turledge, Syska & Hessessy, consulting and mechanical engineers, and Meyer Bro., indicate that this can be a self-liquidating project over a period of 40 years. However, on the basis of this consultant's favorable report, further study will be made of all costs and revenues in the light of recent legislation. Determinations will be made as to the appropriate financing of the substructure from the interest-bearing bonds and from contributions; the period of repayment within the statutory limit of 50 years and with the agreement of the Secretary of the Treasury; the rate of interest as determined by the Secretary of the Treasury; and the scale of parking fees.

I request that this study, marked "Exhibit G," be made a part of the record.

Details of these facilities are set forth in the justification statement and the fact sheet before you.

### ARCHITECT AND GSA

The architect for the Center is Edward Durell Stone, and the General Services Administration is serving as our agent for design and construction. Standard GSA procedures will be followed including the award of contracts on the basis of competitive bidding.

The working drawings for the substructure will be ready by October 1964 and construction may begin 2 months later.

The working drawing for the superstructure is estimated to be completed by January 1965, and a contract could be awarded in March 1965. We have just let the contract for borings.

It is hoped that we shall be ready for occupancy by late 1966 or early 1967.

### ADMINISTRATION OF THE KENNEDY CENTER

The Center is a bureau of the Smithsonian Institution and the Secretary of the Smithsonian serves as one of our trustees. Because we anticipate receiving Government appropriated funds, both through our borrowing authority from the Treasury and from Congress, we have been in consultation with the Office of the Secretary of the Treasury, the Comptroller General, the Bureau of the Budget, and the Smithsonian Institution.

I can assure this subcommittee that we will maintain, administer and carry out the obligations and duties as trustees, not only to the best of our ability, but with the same high standards of fiscal and administrative management required by these agencies and departments.

Also, I want to assure this subcommittee that our Board has decided that appropriated Government funds will be used solely for the construction of the

building and that contributed or nongovernmental funds will be used for administrative expenses and overhead.

LAND ACQUISITION

With respect to the communication from the President transmitting a proposed supplemental appropriation of $3.3 million for the National Capital Planning Commission to acquire necessary land within and without the designated site, this agency was given the mandate to acquire for the Center "lands necessary to provide the John F. Kennedy Center for the Performing Arts and related facilities" (sec. 3, Public Law 85–874). It is essential to acquire land within the designated site. Equally, it is important to acquire land in square 10 known as Watergate Inn property and Adele Ward, not only for the Center to be in a parklike setting but to provide adequate access to and from the Center's 1,600 parking garage facility to the Rock Creek and Potomac Parkway and F Street (sec. 2 of act of June 6, 1924, 43 Stat. 463).

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EXHIBIT D

SUPERSTRUCTURE

Steel and reinforced concrete frame, marble exterior finish, bronze finish of window walls and exterior columns, completely air conditioned.

All building above and including the finishing of level plus 38.

Includes:

1. Entrance plaza, pools, fountains, and trees.
2. River terrace and podium, terrazzo finish.
3. Finishing of all areas below level plus 38 other than parking.
4. Two entrance galleries, 41 by 300 by 60 feet high each, marble finish.
5. Area suitable for memorial to President Kennedy.
6. Grand foyer, 45 by 630 by 60 feet high.
7. 2,750-seat Symphony Hall and related facilities including offices, dressing rooms, rehearsal rooms, and storage areas, etc.
8. 2,200- to 2,500-seat Opera House to be used for grand opera, ballet and musical comedy, and related facilities including offices, dressing rooms, rehearsal rooms, and storage areas, etc.
9. 1,100- to 1,200-seat theater to be used for drama, chamber opera, and recitals and related facilities including offices, dressing rooms, and storage areas, etc.
10. Projection rooms for each hall.
11. TV, radio, and light control rooms for each hall.
12. Public refreshment and reception rooms for each hall.
13. Elevators for public.
14. Opera and theater stage houses.
15. 500-seat cafeteria-type restaurant and kitchen.
16. 150-seat restaurant with kitchen.
17. Multipurpose area on roof to be used for band concerts, exhibitions, experimental theater, children's theater, and receptions. Capacity approximately 2,500.
18. Fan rooms.
19. Electrical rooms.

Briefly, the entrance plaza along the east side of the building is 700 feet long and 125 feet wide and is on the same level as the raised river terrace on the west or river side. The inner loop exit ramp D at the east of the plaza is approximately 2 feet lower and its closest point is 175 feet away from the southeast corner of the building. Its farthest point at the northeast corner of the building is 405 feet. The center of the main north and southbound highway of the inner loop system averages 420 feet away from the building and is located about 26 feet at its lowest point below the plaza.

The entire platform or base, including the entrance plaza, is 700 feet long by 505 feet wide and upon it is built the superstructure containing the auditoriums, etc. The dimensions of this 69-foot-high superstructure are 630 feet long by 300 feet wide, an area of approximately 4⅓ acres. It is noted that the National Gallery is 782 feet long with a maximum width of 303 feet, or some 5⅓ acres in area. Its height is 98 feet, not including the dome, the height of which is 147 feet.

Surmounting the superstructure is the penthouse measuring 560 feet in length, 230 feet in width, 26 feet high, and containing the stage houses, fan rooms, restaurants, and multiple-purpose area.

*Preliminary cost estimate*

[Estimate compiled by Severud-Elstad-Kreuger Associates, Syska & Hennessy, Inc., and Construction Survey Corp.]

| | |
|---|---|
| Superstructure: | |
| Structural | $4,789,200 |
| Mechanical | 10,874,750 |
| Architectural | 12,167,498 |
| Total estimated construction cost | 27,831,448 |
| Total, including construction cost, contingencies, engineering and architectural design, supervision, and administration | 30,973,000 |

EXHIBIT E

*Statement of income and expenses*

| | |
|---|---|
| Hall income: | |
| Playhouse (schedule A) | $251,920 |
| Opera house (schedule B) | 338,480 |
| Concert hall (schedule C) | 72,540 |
| Total | 662,940 |
| Fixed building operating and overhead costs: | |
| Building operating costs (schedule D) | 326,631 |
| General overhead and housekeeping (schedule E) | 209,712 |
| Constant hall costs (schedule F) | 75,920 |
| Total | 612,263 |
| Additional costs of operating halls for 40 weeks (schedule H) | 161,760 |
| Total | 774,023 |
| Total | (111,083) |
| Other income (schedule I) | 287,500 |
| Total | 176,417 |
| Other expenses (schedule J) | 127,000 |
| Net income | 49,417 |

For purposes of the income and expense estimates, the income was figured on the basis of the current booking pattern in Washington without taking into account the possibilities of a natural increase in both programing and attendance which will accrue not only from positive programing by the Center, but also from a steadily growing resident population and a continuation of the upward curve of tourism in the Nation's Capital. This growth would not appreciably increase the expenses since they are included on the basis of year-round figures. Hence, the income estimate is deliberately conservative. If more income were available, it would enable the Center to increase appreciably the public service component of its programing.

SCHEDULE A

*Playhouse income*

| | |
|---|---|
| Income from plays on regular Broadway basis, 1,200 seats, 1 week, at 27 percent of average gross of $30,000 equals $8,100 less average costs of $1,802 times 40 | $251,920 |

SCHEDULE B

*Opera house income*

| | |
|---|---|
| Rental rates: 2,500 seats: | |
| 10,000 per week, commercial; 4,200 per week, nonprofit; 1,666 per day, commercial; 700 per day, nonprofit: | |
| 18 weeks musical comedy and light opera, renting and sharing basis: 1 week, at 25 percent of average gross of $70,000 equals $17,500 less average costs of $7,289 times 18 | $183,798 |
| 6 full weeks rental, at commercial rate | 60,000 |
| 7 full weeks, at nonprofit rate (Ex: Washington Opera Society, Washington Ballet) | 29,400 |
| 11 separate days, International Cultural Exchange | 7,700 |
| 18 separate days, nonprofit | 12,600 |
| 27 separate days, commercial | 44,982 |
| Total | [1] 338,480 |

[1] See schedule H.

SCHEDULE C

*Concert hall income*

| | |
|---|---|
| Rental rates: 2,750 seats: | |
| $600 per performance; $700 per performance; $800 per performance; $30 rehearsal; $100 rehearsal: | |
| National Symphony, 1962–63 schedule: | |
| 19 pairs evening concerts, including 2 by Boston Symphony; 9 matinees; 3 pops; 5 workshop; 16 children's; 3 Merriweather Post Contest finals | $33,000 |
| 22 weeks of 4 rehearsals per week | 2,640 |
| Patrick Hayes, Friday Morning Music Club, 1962–63 schedule | 21,000 |
| International Cultural Exchange program, American attractions, preforeign tour | 8,400 |
| Philadelphia Orchestra, 1962–63 schedule | 4,000 |
| Rehearsal fees | 3,500 |
| Total | [1] 72,540 |

[1] See "Notes on Income Estimate," 2d paragraph.

SCHEDULE D

*Building operating costs*

| | |
|---|---|
| Personnel: | |
| 1 building superintendent | $12,000 |
| 1 deputy building superintendent | 10,000 |
| 11 craftsmen: | |
| 2 electricians | 6,878<br>6,448 |
| 1 plumber | 6,448 |
| 4 air-conditioning engineers | 6,885<br>6,878<br>6,448<br>5,949 |
| 1 carpenter | 6,448 |
| 2 painters | 6,448<br>6,448 |
| 1 pipefitter | 6,885 |
| 3 handymen, at $5,700 | 17,100 |
| 1 stenographer | 4,368 |
| Total building operations personnel | 115,631 |
| Elevator and escalator maintenance | 15,000 |
| Energy and maintenance, including materials, repairs, steam, electricity, plumbing, heating, and air conditioning (of which $130,000 is electrical in nature) | 146,000 |
| Reserve for replacement of building equipment | 50,000 |
| Total building operating costs | 326,631 |

NOTE.—$110,000 for additional energy for performances has been added on schedule H.

SCHEDULE E

*General overhead and housekeeping*

| | |
|---|---|
| Cleaning staff: | |
| 12 porters, at $3,120 ($60 per week) | $37,440 |
| 2 cleaning women, at $2,600 | 5,200 |
| Total | 42,640 |
| Guards: | |
| 1, at $5,800 | 5,800 |
| 3, at $4,680 | 14,040 |
| 5, at $4,300 | 21,500 |
| Total | 41,340 |
| Total, housekeeping personnel | 83,980 |
| Retirement, Federal Insurance Contributions Act and health, hospital and life insurance (now 7.3 percent)—8 percent of payroll, and including executive salaries, stagehands, and house managers | |
| Insurance: | |
| Unemployment on 40-week personnel (3½ percent of first $3,000) | 3,990 |
| Fire insurance | 36,000 |
| Public liability (for theater spaces), bonds for box office personnel, workmen's compensation for theater personnel | 5,200 |
| Window washing | 13,000 |
| Uniforms and cleaning | 3,000 |
| Postage | 3,000 |
| Telephone | 6,000 |
| Supplies: | |
| Office, 52 weeks, at $100 | 5,200 |
| Janitorial | 8,000 |
| Repairs—office machinery and movable equipment | 1,600 |
| Travel | 2,500 |
| Printing and reproduction | 5,000 |
| Total | 209,712 |

SCHEDULE F

*Constant hall costs*

| | |
|---|---|
| 3 house managers, at $10,000, full year | $30,000 |
| 6 stage hands, for 13 months: [1] | |
| 3 heads of departments, at $420 | 23,520 |
| 3 assistants, at $400 | 22,400 |
| Total | 75,920 |

[1] As required by union regulations.

SCHEDULE G

*Summary of fixed operating and overhead costs*

| | Salaries and wages | Other | Total |
|---|---|---|---|
| Operation of building | $115,631 | $211,000 | $326,631 |
| General overhead and housekeeping | 83,980 | 125,732 | 209,712 |
| Constant hall costs | 75,920 | | 75,920 |
| Total | 275,531 | 336,732 | 612,263 |

SCHEDULE H

*Additional costs of operating halls (for 40 weeks)*

| | |
|---|---|
| Energy and maintenance, 3 halls for 40 weeks | $110,000 |
| 5 box office: | |
| 1 treasurer, at $150, 40 weeks | 6,000 |
| 4 others, at $115, 40 weeks | 18,400 |
| Total | 24,400 |
| 2 clerks, at $70 for miscellaneous assignments, 40 weeks | 5,600 |
| Contract cleaning service for theaters | 16,000 |
| Chief ushers, 3, at $48 | 5,760 |
| Grand total | 161,760 |

*Additional weekly costs borne by lessees, or by NCC when operating on regular commercial basis with 8 performances per week*

| | Concert hall | | Playhouse | | Opera house | |
|---|---|---|---|---|---|---|
| | Number | Amount | Number | Amount | Number | Amount |
| Ticket takers (at $48) | 2 | $96 | 1 | $48 | 3 | $144 |
| Extra porters (at $60) | 2 | 120 | 1 | 60 | 2 | 120 |
| Matrons (at $48) | 2 | 96 | 1 | 48 | 2 | 96 |
| Watchmen (at $50) | 3 | 150 | 3 | 150 | 3 | 150 |
| Doorman (at $64) | 1 | 64 | 1 | 64 | 1 | 64 |
| Ushers | | 800 | | 500 | | 850 |
| Advertising | | 100 | | 300 | | 300 |
| Tickets | | 100 | | 100 | | 100 |
| Extra stagehands | | | | 374–691 | | 1,500–5,385 |
| Musicians | | | | | | 2,032 |
| Total | | 1,526 | | 1,644–1,961 | | 5,356–9,241 |

NOTE.—These costs were included when income was calculated on schedules A, B, and C.

SCHEDULE I

*Other income*

| | |
|---|---|
| Concessions: Net, including soft drinks, check rooms | $50,000 |
| Programs: Net (revenue from advertising plus sale of souvenir programs) | 37,500 |
| Restaurants: Net (2 on roof, plus concessions in theaters: 10 percent of gross of $1,500,000) | 150,00 |
| Miscellaneous (rentals from roof, civic events, lectures, etc.) | 50,000 |
| Total other income | 287,500 |

SCHEDULE J

*Executive staff*

| | |
|---|---|
| Director | $25,000 |
| Secretary | 7,000 |
| Assistant Director | 15,000 |
| General Manager | 15,000 |
| Secretary | 6,000 |
| Stenographer | 4,500 |
| Bookeeper | 9,000 |
| Assistant | 6,000 |
| Public information: | |
| Director | 12,000 |
| Secretary | 6,500 |
| Radio and TV operations | 10,000 |
| Secretary | 6,000 |
| Switchboard | 4,000 |
| Total | 127,000 |

NOTES ON COST ESTIMATES

The figures presented in this estimate of income and expense of the National Cultural Center were arrived at after consultation with a number of officials engaged in the presentation of performances of various kinds, with officials connected with the Government in Washington, with our architects and other building operation specialists, and with businessmen. The list is given below.

The estimate is based on several assumptions. First, it is assumed that the Center will function throughout the year and that each of the three halls will be filled for 40 weeks each year.

A second assumption is that while its theater-type operations would be financially independent of any Government appropriation, nevertheless certain Goverernment services would be available to the Center, for example, the care of the grounds by the Park Service, the privilege of buying steam from the Public Building Service of the General Services Administration, and trash removal. Availability of Government services would reduce the amount of insurance required by the Center. It may therefore be possible to eliminate most of the insurance payments shown in the cost schedule, because the Government is its own insurer.

Wages for building maintenance personnel, guards, and cleaning staff are based on present civil service rates for these jobs, because the Center's wages would have to be competitive with those of the Federal Government. In the case of pay for the theater personnel, the current rates were raised to allow for anticipated increases by 1965, when the Center will open.

The estimate covers costs of operating the roof, roof resturants excluded.

Costs have been figured on the basis of the Center's being open 7 days per week. Personnel costs would be reduced noticeably if the Center were to operate on a 6-day basis, which is the basis on which income was figured.

Since the number of stagehands and musicians required in the opera house will vary greatly, it was only practical to use an average when figuring costs.

As in the case of the cost estimates, it is assumed that the three halls will be filled for 40 weeks of the year, with 8 performances per week in each. A schedule for each hall is attached.

The schedule for the concert hall uses the actual number of Washington concerts for the 1962–63 season, plus the number of American attractions touring in an average year under the international cultural exchange program. The estimated income is based on this schedule and may, therefore, be regarded as the minimum to be realized from this hall, for the presence of suitable and air-conditioned facilities, which have been lacking previously, plus the prestige of appearing at the center, will surely attract many musical groups which do not now perform in Washington.

The opera house schedule also uses the current number of productions in Washington, including those by Washington groups, plus the number of American attractions touring in an average year under the international cultural exchange program. To these have been added about seven attractions, both American and foreign, which could be expected to come to Washington if appropriate facilities were available at acceptable rates.

Income from the concert hall and opera house is calculated on the basis of fees only very slightly higher than the rentals now charged by Washington auditoria. These very low rates are proposed, keeping in mind that the Washington performing organizations, which would be the single largest group of tenants, have in the past been unable to pay more.

The theater income is calculated at 40 weeks on the regular Broadway sharing basis. Since there is no theater in Washington suitable for plays without music, it is reasonable to expect that all road companies will use the theater. The International Cultural Exchange and the foreign attractions shown on the schedule could be accommodated within the 40 weeks.

The estimate of income from the two roof restaurants (which includes estimates from the bar concessions serving the audiences) is based on the expectation that the center's beautiful setting along the Potomac and its convenience to Rock Creek Park Drive and the new bridge will attract luncheon and dinner customers from the city at large throughout the year.

No attempt has been made to estimate income from the roof, where band concerts, children's theater, theater-in-the-round, et cetera, can be staged.

Other sources of revenue in addition to those noted on the schedules may be available to the Center after it begins to operate. Some revenue will probably be realized from fees for radio and television programs originating there, and some

income may accrue to the Center from the garage. Rentals from civic activities, as provided in the legislation, may reasonably be anticipated, and possibly some from the Government. It may be feasible to produce and sell gift and souvenir items, such as recordings of some performances at the Center, or to operate a guided tour service.

There is every reason to believe that the program will expand. The population of Metropolitan Washington is growing. The very existence of the National Cultural Center will attract visitors who do not now attend performances while in the Capital, and the prestige of the Center will attract more performing groups. The increase in activities thus generated will bring in substantially more revenue but will add only moderately to costs, as the major expenses have already been figured on a year-round basis.

This leaves 12 weeks a year and some Sundays for our proposed festivals and other activities of a public service nature financed by special grants from the Federal and State governments and foundations.

### Credits

Officials of the following organizations provided information on which the foregoing cost and income estimates are based.

Carnegie Hall
Metropolitan Opera Company
Lincoln Center for the Performing Arts
National Symphony Orchestra
Washington Opera Society
Hayes Concert Bureau, Washington
Brooklyn Academy of Music
Edward Durell Stone
Syska & Hennessey, Inc.
National Gallery of Art
White House Press Office
FBI Public Relations Office
United Nations
Public Building Service
General Services Administration
Government Services, Inc.
New York Telephone Co.
City Playhouses, Inc.
Constitution Hall
Lisner Auditorium

### Exhibit F

#### SUBSTRUCTURE

Steel and reinforced concrete frame, stone facing, exterior, sprinklered, ventilated, and heated.

All building below and including level plus 38, access roads to parking facility, sitework, landscaping, and relocation of Rock Creek and Potomac Parkway.

Includes:

1. Footings and foundations for entire building (including superstructure).
2. Three levels of parking for approximately 1,600 cars.
3. Two finished lobbies per floor with two escalators and two elevators each and toilet facilities.
4. Equipped mechanical and electrical rooms.
5. Subsurface service road and loading platforms.
6. Kitchen, freight, personnel, and scenery elevators.
7. Structure of the three auditoria floors.
8. Understage of each auditorium.
9. Orchestra pits of each auditorium.
10. Space for stage entrances with offices, first aid rooms, dressing rooms for actors and musicians, chorus rooms, tuning rooms, stagehand and building personnel lockers and offices, wardrobe and set storage areas.
11. Space for mechanical and electrical equipment rooms for superstructure, including refrigeration plant, fan rooms, and pumproom.

This building includes three levels of parking for approximately 1,600 cars. The lowest parking level is at elevation plus 8 feet, which means this is 3 feet below the present level of the Rock Creek and Potomac Parkway. Its exterior walls, 15 feet high, extend some 680 feet along the northbound lane of the parkway and are set back not closer than 81 feet to the Potomac River edge. This level is 434 feet wide. Its area is 295,800 square feet or approximately 6½ acres.

An identical level of parking is situated above at elevation plus 17 feet. Above this level is a third parking floor at elevation plus 26 feet. Its roof, at elevation plus 38 feet, forms the base or platform for the superstructure and includes the entrance plaza on the east side of the building.

The land on the north and the south sides of the substructure slopes up and away from the river and the parkway to join the entrance plaza level. In other words, looking at the building from the north or south, the base or platform is seen as some 27 feet above grade at the parkway, 17 feet above grade at the center of the substructure, and level or at grade at the entrance plaza.

On the south side of the building a three-lane entrance road descends from elevation plus 13 feet, or very near to the present level of the parkway, to the lowest parking floor at elevation plus 8 feet. Adjacent to this, a three-lane entrance road ascends to elevation plus 17 feet, or the second parking level. In the same manner, two 3-lane roads (one from each of these levels) exit the garage on the north side, one ascending to the parkway and one ascending to F Street. Both exit roads from the garage on the north side of the building pass through the existing site of the Water Gate Inn.

Interior exit and entrance ramps will be provided adjacent to these exit and entrance roads at level plus 17 feet for immediate access to parking on level plus 26 feet.

At the northeast end of the building, it is planned to raise the present elevation of the intersection of F Street and New Hampshire Avenue by 3 or 4 feet to elevation plus 25 feet. The road to the entrance plaza will then slope up to elevation plus 38 feet. Beneath this plaza will be a service road plus 19 feet with access off the end of New Hampshire Avenue.

At the southeast end of the building and entrance plaza, the road will slope down to meet the garage entrance and parkway levels.

*Preliminary cost estimate*

[Estimates compiled by Severud-Elstad-Krueger Associates, Syska & Hennessy, Inc., and Construction Survey Corp.]

| | |
|---|---|
| Substructure, including 1,600-car garage: | |
| Structural | $5, 547, 855 |
| Mechanical | 4, 220, 000 |
| Architectural | 1, 337, 860 |
| Access roads, sitework, landscaping, and relocation of parkway | 997, 425 |
| Total estimated construction cost | 12, 103, 140 |
| Total, including construction cost, contingencies, engineering and architectural design, and supervision, and administration | 13, 866, 238 |

## Flood Conditions

It is our opinion and those of our structural and foundation engineers that flooding is not a serious problem for the following reasons:

1. Construction of the building in no way obstructs the present flow of the Potomac River.

2. Records show that flooding may take place at this site once in every 5 years up to level plus 7.4 feet. This flood level is some 4 feet below the level of the parkway and one-half foot below the lowest garage level. The parkway will act as a dike and protect the entrances and exits to the lowest level of the garage at plus 8 feet.

3. The maximum flood recorded in October of 1942, if repeated, would rise to a level of plus 16 feet. This is 1 foot below the second parking level of plus 17 feet, 10 feet below the under stage areas of plus 26 feet, and 22 feet below the main orchestra and stage level of plus 38 feet. In order to protect the mechanical equipment rooms and elevator pits from this record flood, waterproof construction, bulkhead doors, and slab, reinforced against uplift, will be used.

4. Flood protection measures on the Potomac are being continually studied and can be considered as a future safeguard.

## Exhibit G

## Economic and Feasibility Report for Plans and Preliminary Estimate of Construction Cost for Proposed 1,600-Car Parking Facility

TABLE OF CONTENTS

Description of project.
Economic and feasibility report.
Estimated cost of project.
Site plan.

### Section I. Description of Project

The proposed parking facility of 1,600 cars will be located on the John F. Kennedy Center site, bounded on the east and south by the ramps "D" and "G" of the new inner loop highway, on the west by the relocated Rock Creek and Potomac Parkway and the Potomac River, and on the north by "F" Street. The site was authorized by the U.S. Government when the John F. Kennedy Center was created by act of Congress in September 1958.

This parking facility will serve patrons of the John F. Kennedy Center and its three auditoriums and transient parkers in the surrounding area. Parking areas are on three levels, below the proposed center building, with entrances and exits to access roads on two levels. Principal ingress and egress to the facility will be New Hampshire Avenue and Rock Creek Potomac Parkway.

The estimated project cost of $13,866,238 is based upon new access roads and site work required, and the construction of the facility up to level plus 38. It will be a reinforced concrete and steel structure. The building cost includes parking space for 1,600 cars, construction of all areas eventually to be used by the Center below level plus 38, and all structural elements, that is foundations, columns, transfer beams, and mechanical services that are necessary for the future Kennedy Center building above level plus 38.

### Section II. Economic and Feasibility Report

THE PROJECTED OPERATING COSTS

This operating expense estimate assumes a 7-day weekly operating schedule. The garage operating hours would be 6:30 a.m. to 2 a.m. or later, depending on the time the last show concludes.

"Labor" includes a garage manager, an assistant manager, and 10 full- and part-time cashiers, and 5 floormen or "floaters" as they are called, who control traffic on the different levels. This force may be augmented or diminished according to need.

"Special services" includes a regular bookkeeping service, surveillance, and a provision for an annual audit of the books.

Estimates for "insurance," "utilities," "housekeeping and maintenance," and "other expenses" are based on unit costs or per stall costs experienced with comparable parking garage operations.

We have assumed that there will be no real estate or property taxes charged against this operation. The concessionaire, of course, will be responsible for the normal licensing and business taxes that would be ordinary to the garaging business.

We have also assumed that the elevators will be maintained and operated by the building proper.

We recommend that this garage be operated by a professional parking concern under a management basis. Under this type of arrangement, all the receipts from parking would belong to the Center (or to whomever owns the garage). From the receipts taken in, the professional operator would pay all the expenses of the operation and also deduct a fee for such management. In this case we have estimated a fee of 6 percent.

Under maintenance and repair, we have allocated a sum of $25,000 per annum which we feel will be more than adequate to cover normal wear and tear and any emergencies which might arise. There should be an annual surplus in this category, which moneys could be accumulated toward a sinking fund.

*Operating expense estimate—National Cultural Center garage*

| | |
|---|---|
| Labor: | |
| Manager, 1 at $600 per month | $7,200 |
| Assistant manager, 1 at $500 per month | 6,000 |
| Cashiers, 10 full-time and part-time at $1.50 per hour | 22,500 |
| Floor man, 5 at $5,000 per year | 25,000 |
| Subtotal | 60,700 |
| Special services: | |
| Bookkeeping services | 1,500 |
| Audit | 750 |
| Subtotal | 2,250 |
| Insurance | 6,000 |
| Utilities: | |
| Power and light (ventilation) | 12,000 |
| Water | 250 |
| Telephone | 500 |
| Subtotal | 12,750 |
| Maintenance and repair | 25,000 |
| Other expenses: | |
| Bus transportation | 10,400 |
| Advertising (for day parking) | 1,000 |
| Office supplies and tickets | 1,500 |
| Uniforms and laundry | 1,500 |
| Miscellaneous | 1,000 |
| Subtotal | 15,400 |
| **Management fee (6 percent of gross parking receipts) approximate** | 45,000 |
| **Total operating expense** | 167,000 |

PROJECTED INCOME

The parking revenue is estimated on three functions a day (as we have been informed) for a 365-day year, with a daily average attendance of 5,000 people. We are also including additional revenue from a percentage of transients and monthly parkers now using open lots in the immediate area who will be displaced by the new Watergate and Columbia Plaza projects. This income will be projected on a rate schedule obtainable as of 1965. It is more than likely that the trend toward increased parking and business activity through the years will produce an upward spiral in parking rates resulting in greatly increased revenue.

This projection of estimated income is based on the second year of business, beginning no sooner than the Cultural Center is in full operation, bus transportation to the State Department Buildings is provided for the daytime parking customers, and most, if not all of the open lot parking areas have been replaced (presently accommodating about 1,400 on and off-street stalls).

*Parking revenue estimates (second year of operation)*

| | Number | Days | Rate | Revenue |
|---|---|---|---|---|
| Monthlies | 250 | | $20 | $60,000 |
| Transients: | | | | |
| Non-Center | 300 | 250 | 1 | 75,000 |
| Non-Center (Saturdays) | 100 | 50 | 1 | 5,000 |
| Center (weekdays) | 300 | 250 | 1 | 75,000 |
| Center (Saturdays) | 750 | 52 | 1 | 39,000 |
| Center (Sundays and holidays) | 600 | 63 | 1 | 37,800 |
| Center (nights) | 1,300 | 365 | 1 | 474,500 |
| Total | | | | 766,300 |

NOTE.—"Center" parkers are defined as those who come to the garage specifically to attend functions, tour the Center's facilities or to transact some specific business within the confines of the Center.
"Non-Center" parkers are those who do not fall within the above noted definition such as occupants of nearby buildings who would park at the Center and walk to or be shuttled to work.

STREET TRAFFIC FLOW

Virginia and New Hampshire Avenues will be main traffic arteries carrying over 60 percent of all traffic into the Cultural Center from South, West and downtown Washington. In the area surrounding the intersection of these two avenues, there will be a great volume of traffic generated by the projected Watergate and Columbia Plaza projects.

Completion of these projects will include parking for at least 2,500 cars, and the problem of traffic jams on Virginia and New Hampshire Avenues is inevitable. We believe the way to eliminate this situation is to stagger the starting time of events in the three halls over a 45-minute to 1-hour period. This is strictly a problem of street traffic and will not affect the interior flow within the garage.

INTERIOR GARAGE TRAFFIC FLOW

Through past experience, we have found that one car can pass by a machine every 10 seconds. With four machines (two at each entrance) it is possible to fill half of the garage in one-half hour and the entire garage in a little over 1 hour. Exiting, however, involves the reading of every ticket for correct charges and the collection of moneys. This time will be cut to a minimum by our suggested flat rate charge of $1 per 12-hour period or any part thereof.

With this system in mind, exiting is cut to 30 seconds per car. We suggest two exits with three cashiers at each (or a total of six cashiers) during peak exiting periods. This will provide for a total of 720 cars exiting in 1 hour.

Use of differential counters at the entrances and exits will act to control capacity at overflow events. When this occurs, traffic will have to be diverted to the nearby garage at the Watergate project, which will have ample room to accommodate Center cars.

We feel that these overflow events will be of a minimum number and that the projected number of stalls (1,600) is sufficient to handle 95 percent of the events.

SHUTTLE BUS

To make parking at the Center during daytime hours attractive for State Department employees, and others in nearby Government office buildings, we suggest a shuttle bus service. The driver of a car would ride free while his passengers pay a 20-cent or 25-cent round trip fare. The charges paid by these passengers should pay for the cost of the bus, which is about $40 per day.

PROPOSED FINANCING

It is our feeling that this garage should be financed through a 40-year self-liquidating bond issue bearing a 3-percent interest rate, with the revenue of the garage pledged to cover the debt service. On the basis of a $14 million cost, a 4.25-percent interest and amortization constant would require a debt service of $595,000 per annum. This figure, plus the operating cost of approximately $170,000, would leave approximately $5,000 a year for a sinking fund and would allow the entire investment to be paid back if the sinking fund is allowed to accumulate, somewhat under the 40-year period. It is theoretically possible to call the bonds before this length of time had elapsed. Consideration should

be given to the fact that interest and amortization will remain constant, but the upward trend of growth and revenue could reduce the total length of investment.

*Sec. III. Preliminary cost estimate*

Substructure, including 1,600-car garage:

| | |
|---|---|
| Structural | $5, 547, 855 |
| Mechanical | 4, 220, 000 |
| Architectural | 1, 337, 860 |
| Access roads, site work, landscaping, relocation of parkway | 997, 425 |
| Total estimated construction cost | 12, 103, 140 |
| Total, including construction cost, contingencies, engineering and architectural design, supervision, and administration | 13, 866, 238 |

HIGHLIGHT STATEMENT

Mr. STEVENS. Mr Chairman, the bipartisan legislation which created the center had its genesis under the Eisenhower administration. It was vigorously advocated by President Kennedy and has already received substantial encouragement from President Johnson.

Briefly, the act passed in 1958 designated the land upon which the center should be constructed, and vested in a Board of Trustees the power to maintain and administer the Center.

Of the 45 trustees, 3 are Members of the U.S. Senate, Joseph S. Clark, Jr., J. William Fulbright, and Leverett Saltonstall. Since the 1958 act specified that all building funds must be raised by voluntary contributions, we have been fortunate in having the benefit of the generosity of my predecessor, Hon. L. Corrin Strong, who has contributed more than $800,000 specifically earmarked for administrative and fundraising expenses.

FUNDRAISING PROGRAM

By November 1961 the Center had raised approximately $1.2 million. However, I am happy to report that since that time, through the dedicated efforts of many individuals, our funds, including bona fide pledges, have reached upward of $14 million. These funds have come from foundations, such as the Ford Foundation (on a 3-to-1 matching basis from private funds), the Rockefeller Foundation, and the Old Dominion (Mellon) Foundation, business, industry, labor, foreign governments, and the general public. A demonstration of the interest is the response of the schoolchildren who will be among the greatest beneficiaries of our efforts.

CENTER A MEMORIAL TO PRESIDENT KENNEDY

Immediately following the assassination of our late President, a spontaneous movement spread throughout the country to make the National Cultural Center the official memorial to President Kennedy. The proposal, it was learned, met with the approval of the Kennedy family and was endorsed by President Johnson. The action taken by Congress in January of this year emphasized the nationwide feeling that the Cultural Center was, indeed, the most appropriate memorial to a man who had held the arts in such high regard.

REVISED FUNDRAISING GOAL

At the annual meeting of the Board of Trustees held on January 13, I was able to announce a revised fundraising goal as a result of the new legislation. In my opinion a further $6.5 million remains to be raised. This figure is comprised of $2.5 million expected to be raised in a single event to take place this year, details of which will be announced later; $1.5 million to be raised in the Greater Washington area; and $2.5 million from industry, labor, business, foundations, special gifts, and the general public.

OUTSTANDING PLEDGES

Chairman HAYDEN. What is the amount of contributions now in custody of the Board which can be matched against the requested appropriation?

Mr. STEVENS. Outstanding pledges of $7,901,952.40 and total cash income of $6,247,880.94, a total of $14,149,833.34.

Chairman HAYDEN. And you have to raise how much more?

Mr. STEVENS. After conversion of the pledges, approximately $1½ million. At our annual meeting on January 13 we revised our goal for $6½ million to have sufficient capital and a reserve.

Chairman HAYDEN. How much do you need to complete this?

MATCHING FUNDS

Mr. STEVENS. We should have $15,500,000 from the public funds to match the appropriation requested from Congress. However, we have had expenditures for administration, fundraising, architects and engineers fees and an advance of almost $150,000 for land to U.S. Government.

Chairman HAYDEN. You are getting very close.

Mr. STEVENS. We are very close, sir, but we still would like to have a little reserve.

Chairman HAYDEN. How long do you expect that it will take to secure the full amount of $15,500,000 in contributions to permit use of all the appropriation?

Mr. STEVENS. I expect we can have that money by the end of the year.

Chairman HAYDEN. What is the earliest date on which you definitely must have the appropriation?

Mr. STEVENS. G.S.A. is our agent for design and construction. Under our contract they cannot advertise for construction bids until we transfer the money to them. They will require money before the first of the year.

Chairman HAYDEN. Then the first of the year is the date?

Mr. STEVENS. That is the date we should have it, but we also expect to start construction of the excavation and substructure by that time.

Chairman HAYD N. Would your program actually suffer if the funds were not made available until after July 1, 1964?

Mr. STEVENS. No, sir; as long as we have the money in fiscal year 1965.

Chairman HAYDEN. Do you have any other observations you care to make?

STATUS OF FUNDRAISING PROGRAM

Mr. STEVENS. I would just like to point out that our fundraising is going along. During the month of February we increased our gifts $429,000, and I would like to make the up-to-date comparative figures as of February 29, as a matter of record. I have marked it "Exhibit H."

Chairman HAYDEN. That will be done.

(The information referred to follows:)

EXHIBIT H

FINANCIAL REPORT, FEBRUARY 29, 1964

WASHINGTON, D.C.
*March 3, 1964*

*To the Board of Trustees of the John F. Kennedy Center for the Performing Arts, Washington, D.C.*

GENTLEMEN: In accordance with your request we have examined the books and records of the John F. Kennedy Center for the Performing Arts for the period April 1, 1959, through February 29, 1964, and submit herewith the condensed statement of pledges, cash receipts, and disbursements for the period from inception, April 1, 1959, through February 29, 1964.

Our examination was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion the accompanying condensed report presents fairly the results of operation of the John F. Kennedy Center for the Performing Arts for the period from inception, April 1, 1959, through February 29, 1964, in conformity with generally accepted accounting principles.

Respectfully submitted.

JOHN J. ADDABBO,
*Certified Public Accountant.*

*Condensed statement of pledges, cash receipts and disbursements for the period from inception, Apr. 1, 1959, to Feb. 29, 1964*

| | Apr. 1, 1959, to Jan. 31, 1964 | Apr. 1, 1959, to Feb. 29, 1964 | Increase, month of February 1964 |
|---|---|---|---|
| Outstanding pledges [1] | $7,645,241.77 | $7,901,952.40 | $256,710.63 |
| Total cash income | 6,075,369.72 | 6,247,880.94 | 172,511.22 |
| Total subscriptions on books | 13,720,611.49 | 14,149,833.34 | 429,221.85 |
| Pledges from President's Business Committee (not yet received) | 200,000.00 | 115,000.00 | (85,000.00) |
| Total | 13,920,611.49 | 14,264,833.34 | 344,221.85 |
| Deduct, disbursements: | | | |
| Expenses to date | 1,667,193.26 | 1,702,166.61 | 34,973.35 |
| Capital expenditures [2] | 787,162.33 | 840,769.70 | 53,607.37 |
| Total disbursements | 2,454,355.59 | 2,542,936.31 | 88,580.72 |
| Excess of outstanding pledges and cash income over disbursements | 11,466,255.90 | 11,721,897.03 | 255,641.13 |

[1] Outstanding pledges includes Ford Foundation grant of $5,000,000 on a 3-to-1 matching basis of nongovernmental funds.

[2] Capital expenditures during February 1964 of $53,607.37 consist of $53,045.91 in architect fees paid to Edward Durell Stone and $561.46 expended for office equipment.

ARCHITECT WORKING ON THE CENTER

Mr. STEVENS. Our architect is Edward Durell Stone, who has done many famous buildings, some for the Government, the famous Belgium Pavilion during the World's Fair and the U.S. Embassy in India. He has been working right along in order to save time even though we have not raised all the money.

HALL OF STATES

That exhibit (showing portfolio of colored photos of model) is to give you an idea. That is from our model, the way it will look along the riverbank. This picture shows the side where the cars will be coming in and discharging the people. This is what we call the Hall of States. That is between two of the theaters. We hope that each State will make a small contribution to become a member of the Hall of States; there will be a plaque and flag for each State. This would be the grand foyer running the length of the three theaters and will be looking out on the Potomac River.

1,200-SEAT THEATER

We think that we have about 120 acres of open space on the river side and the Theodore Roosevelt Island across the way gives this proposed building a great vista and will make it much more attractive. We are just fortunate to be on the banks of the river. These are just typical interiors of the three auditoriums. That would be the theater. We have proposed a 1,200-seat theater.

OPERA HOUSE AND MUSIC HALL

This would be the opera house which would be approximately 2,250 seats, and the new philharmonic or music hall will have 2,750 seats which, we would hope, would solve all of our problems for our orchestras.

ROOF AREA A MULTIPURPOSE AUDITORIUM

Then here is a roof area which can be used for many purposes. Such as a children's carousel, children's theater, theater in the round, art exhibition area, and so forth. It is a multipurpose auditorium and is a rather clever idea of the architect, because he was able to use what is normally a waste space in a theater for something useful and productive.

Thank you very much, sir.

Chairman HAYDEN. Thank you.

The committee will stand in recess until 9:30 tomorrow morning.

(Whereupon at 10:40 a.m., Wednesday, March 4, 1964, the committee adjourned, to reconvene at 9:30 a.m., Thursday, March 5, 1964.)

# DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1965

THURSDAY, MARCH 5, 1964

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, D.C.*

The subcommittee met at 9:30 a.m., pursuant to recess in room 1223, New Senate Office Building, Hon. Carl Hayden (chairman) presiding.

Present: Chairman Hayden, Senators Bible and Bartlett.

DEPARTMENT OF THE INTERIOR

## STATEMENT OF HON. WAYNE MORSE, U.S. SENATOR FROM THE STATE OF OREGON

FOREST SERVICE AND DEPARTMENTAL ACTIVITIES

Chairman HAYDEN. The committee will be in order.

Senator Morse we will be pleased to hear from you.

Senator MORSE. Mr. Chairman and Senator Bartlett, I am pleased that you could set your schedule to hear me at this early hour.

In my capacity as chairman of the Subcommittee on Latin America, I have to participate in a 3-day parliamentary conference on Latin America. For that reason I asked to testify as early as possible this morning.

I have a very carefully prepared statement, as I always try to present to you, dealing with appropriations for the Bureau of Indian Affairs, the Forest Service, reforestation and recreation, forest management and watershed research, the La Grande, Oreg., Wildlife Habitat Laboratory, the Bureau of Land Management, the Vale, Oreg., range rehabilitation project, soil and moisture conservation, weed control, the Bureau of Land Management forestry program, and outdoor recreation development.

But I ask now, Mr. Chairman, permission to put this whole statement in the record.

Chairman HAYDEN. That may be done.

(The statement referred to follows:)

STATEMENT OF SENATOR WAYNE MORSE

Mr. Chairman and members of the subcommittee, your kindness in scheduling an early morning subcommittee hearing is deeply appreciated. I know that time is precious to the subcommittee so I shall be brief in presenting my case in support of fiscal 1965 appropriations for the Bureau of Indian Affairs, the Forest Service, and the Bureau of Land Management on items that are of special importance to the State of Oregon and the Nation. You have been very considerate of the needs of Oregon in the past and I know that, as usual, you will judge these budget requests strictly on the merits with the public interest uppermost in your minds.

BUREAU OF INDIAN AFFAIRS

*Tongue Point Indian School*

The fiscal 1965 budget contains an item of $2,042,000 for the second phase of a plan for conversion of the facilities at Tongue Point, Oreg., to a new high school for Indian students. The first phase of the Indian school conversion work involves the reprograming of $2,921,000 of funds appropriated for fiscal 1964, now on hand in the Bureau of Indian Affairs.

It was our late beloved President Kennedy who approved the reactivation of the Tongue Point Naval Base when he visited the base on September 27, 1963. The President saw Tongue Point at firsthand and he expressed not only surprise, but delight, when he observed a large number of permanent buildings in excellent condition at this installation. It was readily apparent to the President that we had in the Tongue Point installation a fine multipurpose Federal project having scores of years of usefulness.

In his press release of September 27, 1963, the late President made it clear that he desired prompt reactivation of the base for multipurpose use, and he indicated initially his desire that the base be used for a Weapons System Acquisition Management School and a Coast Guard Helicopter Rescue Base. I still recall the President's very wise words when he said at the outset of his press release, "I have been convinced that it would be more economical and efficient to use these facilities, and the skills available in the area, than to build new ones elsewhere."

On the return trip from Tongue Point to Tacoma, Interior Secretary Udall, who accompanied the presidential party on the visit to Tongue Point, pleased me very much when he stated to the President that he was very favorably impressed with the Tongue Point facilities, and that in view of its fine potential for Federal use, he planned, upon his return to Washington, to recommend to his assistants that they look into the possibility of using Tongue Point for a contemplated project of the Interior Department. That project turned out to be the proposed new Indian high school that is included in the budget now under consideration by this subcommittee.

In order that the subcommittee and the full committee may have complete background information on the considerations that led up to the plan to reactivate Tongue Point, I ask, Mr. Chairman, that the President's press release of September 27, 1963, and portions of my newsletter of October 7, 1963, be included as part of the record of this hearing.

Mr. Chairman, the facilities at Tongue Point are not temporary wartime structures; they include buildings that were meant to last indefinitely. They are attractive and ideally situated for an educational institution.

The Astoria Chamber of Commerce provided my office with a brochure containing a complete description of the Tongue Point Naval Base and its buildings. It contains color photographs of the buildings. These installations will, I am sure, impress you as deeply as they did our late President. I am submitting this brochure for the subcommittee's use and I hope that each member of the subcommittee will examine it.

Mr. Chairman, a new Indian high school, of the type envisaged for Tongue Point, has to be constructed someplace in the United States. I know that the members of this subcommittee, of both parties, are genuinely interested in economy in our Federal budget. From that standpoint, we cannot afford to bypass the use of this ideal base for the Indian school that has been proposed in the administration's budget.

The letter addressed by the Secretary of the Interior to the Appropriations Committees of both Houses in December of 1963, contained this extremely important observation concerning the Tongue Point location: "It is estimated that a savings of approximately $3 million in construction costs could be made over the construction of a completely new high school plant." The obvious economy to be achieved through the use of existing and permanent facilities is a consideration that Congress, in the interest of saving taxpayer dollars, should not overlook.

The new Indian high school proposed for Tongue Point will meet a growing need for a boarding school off-reservation high school for our Indian population. Indians in increasing numbers are graduating from the elementary grades. They are in need of high school facilities and no Indian child should be denied the chance for a sound basic high school education. This is what the Tongue Point Indian school would offer.

This facility is proposed as an addition to the Federal Indian high school system. It will provide amply for 1,000 high-school-age students. It is not intended to serve any particular part of Indian country, nor to replace any par-

ticular part of Indian country, nor to replace any particular existing or proposed facility. Students who will attend may come from any part of the Indian country.

Instructional programs at the Tongue Point School would provide a top quality, basic high school education for the Indian students. The program would be on a par with any in the United States; it would be geared to the demands of a modern world and at the same time would meet the particular needs of the Indian students. Emphasis would be devoted to English language capability, mathematics, science, career counseling, physical fitness, and the practical arts.

The important thing to remember is that many of the facilities needed in a boarding school are already constructed and in operating condition at Tongue Point. An inspection of the present plant indicates that the living quarters for employees can be used with a minimum of repair work and that two reinforced concrete and brick buildings, one the former bachelor officers' quarters and the other, the former administration building, would need only minor repairs to make them serviceable. Other buildings on the site are constructed of permanent materials that can be remodeled and renovated at a cost significantly less than constructing completely new facilities.

Although it will be necessary to construct a new academic classroom building and additional dormitories, it is estimated that the conversion of the base to a 1,000-student-capacity boarding school could result in considerable savings over the construction of a new high school, as indicated in Secretary Udall's letter addressed to the committee last December.

We have already invested amounts estimated at from $13 to $18 million at the Tongue Point installation. The base is no longer needed for the purposes for which it was built. The most practical use other than military is for a boarding school. The Bureau of Indian Affairs has demonstrated its ability to adapt its programs to successfully utilize such abandoned military installations for educational purposes. They operate two such installations now—the Mount Edgecumbe School at Sitka, Alaska, and the Intermountain School at Brigham City, Utah.

Enrollment of Indian children in public schools has long been an objective of the Bureau of Indian Affairs and for several generations, Indian children have attended public schools. There is no policy of segregating Indian children. On many reservations, however, public schools are not yet feasible and the Bureau accordingly continues its own day schools. In addition, the Bureau operates boarding schools for certain Indian children who have special educational and social needs that cannot be met elsewhere. Primarily, they come from isolated rural reservation areas, where both schools and roads are often lacking. Some are from broken and undesirable homes and some have failed in the public schools, or for social reasons must be removed from their homes and local communities. Almost all the children enrolled in Federal schools must learn English as a second language after they start their schooling. The goal at Tongue Point will be to keep students in attendance through high school graduation and to encourage them to continue their education or vocational training beyond high school.

It is important to bear in mind that construction of the Indian school at Tongue Point constitutes insurance for low future costs in expanding the capacity of the school. Up to this point I have dealt with the facilities necessary for educating 1,000 high school students. It would be possible to expand this school at a later date by another 1,000 students, without doubling the cost of construction. This would be possible because the basic utility systems and housing units will not be utilized to full capacity for a thousand pupils. Some additional school construction would be necessary, of course, and additional conversion work in the large hangars would be necessary to provide for shops; but another 1,000 additional students could have school facilities at an even more reduced cost than the conversion work now proposed.

Housing for administrative personnel and faculty would present no problem whatsoever at the Tongue Point School. On the hillside overlooking the base are more than a hundred homes, some duplex, some fourplex, consisting of two-bedroom units and a few three-bedroom units. These have been kept in excellent condition during the custodianship of the General Services Administration and the nucleus of fine family community is at hand within easy walking distance of the school. These are attractive homes and would be very much desired by administration and school personnel.

I urge the subcommittee most earnestly to approve the reprograming of fiscal 1964 funds and the appropriation of fiscal 1965 funds for this new Indian school.

Such approval will mean savings of up to $3 million for our taxpayers, a top-rate high school for our Indian youth, and wise utilization of a closed down base having permanent facilities ideally suited for the purpose of an educational institution.

Turning now to the budget for fiscal 1965 for the Forest Service, I should point out that the Forest Service and the Bureau of Land Management administer approximately 340 million acres of land in the continental United States plus almost 300 million acres in Alaska. They perform great conservation functions on behalf of the people of the United States and therefore the amounts budgeted for their operations are of tremendous importance in assessing how well we are progressing in conserving and developing our natural resources.

FOREST SERVICE

*Program for the national forests*

Several years ago the Department of Agriculture submitted its program for the national forests, which envisaged an acceleration in the funding of the important conservation efforts of the Forest Service. In part, the program called for a 5-year period wherein there would be annual increases in the Forest Service budget of approximately $40 million per year in order to get the level of funding up to desirable amounts.

I regret to observe that this year's budget does not provide for the continuation of this program at the originally planned levels. However, the situation is not completely negative. The budget for fiscal 1965 does provide for a stepped-up program of the Forest Service and thus makes some progress.

Rather than make specific requests for certain items in the budget, I would refer the subcommittee to the original schedule of the program for the national forest and its funding levels. I urge that an effort be made to provide necessary increases for all of the various proposals so that they will more nearly approximate the schedules that were indicated in the program for the national forest.

*Forest research*

The proposed increases in forest research are not as substantial as are needed if we are to get the answers to many of the puzzling questions which face important industries, such as the lumber industry.

I have received letters from the Soil Conservation District in Elgin, Oreg., the Oregon Association of Soil Conservation Districts, the Boise Cascade Corp. and the Western Forestry & Conservation Association. (See p. 1059.) All of these letters deal with the need for additional forest research funds. I ask that these be included as exhibits in the record at the close of my statement. They deserve serious consideration.

*Reforestation and recreation*

I am pleased to note that there is a substantial increase in the budget for reforestation, recreation, and public use. These programs are extremely important. Recreation use is increasing by leaps and bounds in all of our national forests. Therefore, every effort should be made to take care of this important activity. Reforestation and stand improvement are essential to building forests for tomorrow. The money that is requested here will be very well spent.

*Forest research—La Grande, Oreg., Range and Wildlife Habitat Laboratory*

The need for the construction of a forest service laboratory at La Grande, Oreg., is most urgent. The purpose of this laboratory is to foster the proper development of range and wildlife habitat. It will be a vaulable research facility serving all of eastern Oregon and eastern Washington. The Eastern Oregon College at La Grande has set aside property for the use of the Forest Service in establishing this laboratory and it would be extremely useful if the committee could program the money needed for the planning of this facility during the current fiscal year. It has been estimated that $28,000 could be used for designing and planning the laboratory during fiscal 1965. Citizens of the La Grande area have urged that $50,000 be appropriated for this purpose. The laboratory is long overdue and urgently needed. Therefore, I ask the committee to approve the maximum sum possible in order that we may complete the planning on this project during fiscal 1965.

Two letters I have received speak most eloquently concerning the desirability of an appropriation this year or the La Grande laboratory. I ask that the subcommittee also include these letters—addressed to me by the La Grande Chamber of Commerce and the La Grande Industrial Development Corp.—in the hearing record at the close of my testimony.

FOREST MANAGEMENT AND WATERSHED RESEARCH

Very much needed, is $120,000 for forest management and watershed research on forest lands in northeast Oregon. I hope that the committee will give very careful consideration to this item. The counties in northeast Oregon have already joined together and are about to complete a study of the natural resources of Union, Wallowa, and Baker Counties. This study cost $59,000 and demonstrates the wisdom of developing the sub-Alpine resources of this region.

BUREAU OF LAND MANAGEMENT

The attention of the subcommittee is directed to the great progress that is being made in forest and range management by the Bureau of Land Management. This is in no small measure due to the constant helpful assistance the Bureau's programs have received from this committee and from the House Committee on Appropriations. The Bureau's work has also been enhanced by the leadership of Assistant Secretary Carver and the new Director of the Bureau of Land Management, Charles Stoddard.

*Vale, Oreg., range rehabilitation project*

The subcommittee members deserve a brief report on the Vale project which was initiated a few years ago with the help of the committee. The project is already evidencing great promise. Last fall the National Advisory Board Council of the Department of the Interior met a Vale, Oreg., to review what has been done in the way of conservation work in this area. The Board members were greatly impressed by the progress in conservation rehabilitation that has resulted from the funds already appropriated. A number of field trips were taken and a great deal of searching examination was made into the operation of the program by people with a wide background of ranching, conservation, and other resource skills. The measure of the results at Vale can best be summed up by the statement made by one rancher out there who described to the assembled people from all over the West how the program operated from his point of view. As a rancher using BLM lands, he said that prior to the initiation of this project, his heavy degree of use of these public lands and the uncertainty of his tenure had very harmful effects upon his economic status. After the benefits of the seedings began to accrue, he indicated he was paying more taxes than he had paid previously. Thus, the project helped not only this rancher, but the Federal Government as well.

This is the type of result that we should expect from the conservation work on these rangelands. The funds your committee has made available on the Vale project has enabled BLM to begin a truly effective rehabilitation of the lands so that the ranchers can get on the range the number of livestock which they are entitled to have out there. They make money and the Government makes money and the Government makes its money two ways—it not only receives the income from grazing, but gets increased tax revenue from the ranchers who use the rehabilitated lands. The project in eastern Oregon has done a great deal to strengthen the economy of that entire area. It serves as a great indicator of what can be accomplished by wise investment of Federal funds in our western range.

*Soil and moisture conservation*

The budget before you contains a request for approximately $11,900,000 for soil and moisture conservation. It is my understanding that after taking into account various budgetary changes and the effect of the pay act, the amount being appropriated is essentially the same as last year. I would like to point out to the subcommittee that the results of the prior efforts of the subcommittee to provide more adequately for the conservation of public lands have been extremely useful. The acreage involved is so large and the job ahead is so great, however, that additional funds could be spent adequately on these important watershed and grazing lands. Therefore, I hope that the subcommittee will give consideration to a further acceleration of the soil and moisture conservation work of the Bureau of Land Management.

*Weed control*

Mr. Chairman, I ask that a copy of a letter dated February 20 from the Association of Oregon Counties, addressed to the Director of the Bureau of Land Management, be included in the record as an exhibit following my testimony.

The Bureau of Land Management owns about a quarter of the Federal public lands in Oregon. It is not providing its share of weed control funds. In fact,

Oregon's State and local governments spent $758,955 on weed control last year which is more than the BLM spent in the entire Nation. It is my suggestion that the subcommittee direct the BLM to make a comprehensive analysis of this matter. A table on page 3 of the association's letter shows how infestation of eight noxious weeds has increased in Oregon over the last 26 years. In 1937, less than 27,000 acres of infestation were reported in Oregon. Today, over 1,200,000 acres have noxious weeds.

A cooperative program is urgently needed. The Federal agencies should match, dollar for dollar, the non-Federal expenditures on weed eradication on an prorated basis.

The data just cited emphasizes the importance of a good program of range rehabilitation. Such rehabilitation provides multiple benefits. It controls weeds, increases usable forage, helps the watershed and strengthens the economy.

*Bureau of Land Management forestry program*

One of the most important facets of the Bureau's conservation program is its forestry program. This is of special significance in western Oregon. The subcommittee will recall that the October 1962, hurricane struck down billions of board feet of timber in Oregon and Washington State. Due to the excellent leadership provided by Assistant Secretary of the Interior Carver, a massive effort was made to salvage as much BLM timber as possible. The Bureau of Land Management has made tremendous progress in its salvage program and it comes into fiscal 1965 with the job largely completed.

As of January 31, 1964, the BLM had sold almost 1.8 billion board feet of salvage timber resulting from the 1962 Columbus Day storm. The value of this timber was over $42 million.

This is a very creditable record. Hundreds of millions of board feet of timber have been saved and put to useful purposes. Only a minor fraction of 1 percent of the timber offered has not been sold to date.

The budget for this year will provide essential funds to complete reinventories and to provide for adequate reforestation so that the conservation benefits from the management of these lands will continue to be developed properly and wisely.

*Outdoor recreational development*

The tremendous upsurge in the population of our Nation makes it imperative that immediate consideration be given to providing funds for the planning and construction of sites, facilities and access on the millions of acres of BLM lands having important recreational values. We owe this to ourselves and future generations.

Mr. Chairman, I ask that an excellent letter of January 31, addressed to me by the Oregon Wildlife Federation and the federation's resolution of January 12, concerning the development of recreational values on BLM lands, be set forth in the record of this hearing.

CONCLUSION

As the members of this subcommittee know, in the last several months I have waged a strong battle to curtail tne amount of money spent under the foreign aid program. I will not reiterate my views on the improvements that can be made on this program, but I wish to emphasize that some of the savings we have made in foreign aid should be used to augment expenditures for domestic conservation needs.

The action that was taken on the foreign aid program has been of positive value in helping the President keep the entire budget below the $100 billion mark. I suggest that we consider our conservation agencies as primary agencies to receive some of the funds we have saved on foreign aid. Studies that have been undertaken show that the areas of heaviest rural poverty are also areas of the largest concentrations of Federal lands. Why? Perhaps it is because the Federal lands are either in the backwater of economic activity or because the lands held by the Federal Government have been subjected to constant abuse over a long period of time, resulting in their deterioration before intensive management benefits could be provided. The Federal Government, therefore, has a tremendous job to do in building up its public land resources, particularly the rangelands of the West.

Under the circumstances, I urge this subcommittee to estimate a reasonable amount that could be added to the budget for the following types of activities on lands of the Forest Service and the Bureau of Land Management: reforestation, range revegetation, watershed protection treatment and the developing of outdoor recreation facilities. Vigorous programs in these areas would be of

great value. Additional work on reforestation would enable allowable cuts on the national forest and public lands to be moved upward. This in turn, would provide more timber to be converted by mills into lumber and other forest products.

Increased range revegetation and watershed protection would provide for a greater amount of grazing on the national forests and the BLM lands, thereby increasing the annual grazing capacity and enabling the ranchers to obtain better grazing than is now possible.

It is my recommendation that an increase of not less than $20 million be allocated to the Forest Service and an increase of not less than $10 million be allocated to the Bureau of Land Management to augment the level of conservation work on the lands under their respective jurisdictions.

In closing, I wish to thank the subcommittee, the full committee and the chairman of the Senate Appropriations Committee, Senator Hayden, for many years of help to the State of Oregon and for your fairness and understanding in passing upon appropriations requests for the Forest Service, the Bureau of Land Management, the Bureau of Indian Affairs, and other agencies within the Departments of Agriculture and Interior. I am most appreciative of the action that you have taken over the years on requests that relate to the State that I have the honor to represent in the U.S. Senate.

Again, I thank the chairman and members of the subcommittee for having taken time out of your busy schedule to consider this statement.

(The material referred to in Senator Morse's statement follows:)

STATEMENT BY THE PRESIDENT

For some time I have been concerned over the failure of the Federal Government to make use of the excellent facilities available at Tongue Point. On the basis of my talks with Senator Morse and reports by the appropriate officials, I have been convinced that it would be more economical and efficient to use these facilities, and the skills available in the area, than to build new ones elsewhere.

The best first step in reactivating this facility appears to be multipurpose use It is, therefore, a pleasure to be able to tell you that both the Department of Defense and the Coast Guard will shortly initiate activities here.

Early next year the Department of Defense will establish a Weapon System Acquisition Management School here at Tongue Point. This school will be jointly staffed by our military departments and will provide training for senior personnel and senior military officers for all the services and the Defense Department.

Shortly after this training activity begins, the Coast Guard will establish a helicopter rescue base here.

Both agencies will soon begin their planning in cooperation with the General Services Administration.

I am particularly happy to make this announcement—not only because it will enable the Government to put to effective use part of an excellent facility in which many millions of dollars have been invested over a period of years—but also because it will bring to Astoria economic benefits your community sorely needs.

The establishment of these activities at Tongue Point is a fortunate concurrence of efficient Federal use of facilities and of local needs. It is in no small way a tribute to the alertness and persistence of your senior Senator, Wayne Morse. His deep awareness of the interests of the people of Astoria—and of Oregon—and his strong advocacy of efficient Government operations are, I am sure, well known here in Oregon.

Our long efforts to bring Tongue Point back to life have shown again the necessity for persistent attention to economy in Government. Anyone who has seen Tongue Point—as I have today—knows that it makes little sense to build new facilities for new or expanded Federal activities when existing, but unused, installations can be modified to meet the need.

With this in mind, I have instructed the Director of the Bureau of the Budget to take whatever steps may be necessary to make certain that this kind of choice is made systematically and objectively—with economy and efficiency as the standards.

Again, I want you to know how delighted I am that part of Tongue Point will soon be reactivated, and I can assure you that we shall continue our efforts to take advantage of the full potential of this installation.

SENATOR MORSE'S NEWSLETTER

OCTOBER 7, 1963.

DEAR FRIEND: On September 27, President Kennedy visited Tongue Point, near Astoria, and announced the renewal of Federal activities at the former naval base; the White House Press Secretary read as follows:

* * * * * * *

"The Weapon System Acquisition Management School and the Coast Guard helicopter rescue base will not, of course, come anywhere near making full use of the available facilities. However, the President has made clear that Tongue Point is to be reactivated on a multiuse basis. It is the plan to locate at Tongue Point additional Federal activities just as rapidly as the various agencies and departments find that they have need for any of its facilities."

President Kennedy made clear such a policy when he stated: "I can assure you that we shall continue our efforts to take advantage of the full potential of this installation."

I have been assured that both the General Services Administration and the Bureau of the Budget have been instructed to work to this end. Mr. Ralph Dungan, White House aide to the President, acting under instructions from the President, has been working on the Tongue Point reactivation problem for many months. We are all greatly indebted to Mr. Dungan for his very effective work in response to the representations I have made to the White House on the behalf of the Oregon Delegation in respect to reactivation of Tongue Point.

The most important immediate effect of the President's action is that Tongue Point has been saved from being dismantled, its buildings razed, its equipment sold for salvage prices, and the real estate divided up and sold for much less than a fair return to the taxpayers. We who opposed the junking of Tongue Point pressed upon the President and his advisers the importance of retaining it as a Federal facility. This does not foreclose future lease arrangements for use of some portion of the property by Oregon municipal, county, or State governments; nor does it exclude the possibility of lease arrangements with private industry for use of portions of the facility consistent with Federal use of other portions.

The American taxpayers have more than $14 million invested in this facility. What I have sought to do in my endeavor to save it as a Federal installation has been to protect that economic interest, and by so doing, provide the best assurance to the people and business interests of Oregon and the Astoria area that Tongue Point would be put to such uses as would maximize the economic contribution of the facility to the economy of the area and of the State.

The decision to recativate Tongue Point for multipurpose Federal use does not mean that overnight, or within the next few weeks or months, Tongue Point is going to be teeming with Federal activity and personnel. It will take time to establish new Federal activities there. But the important thing is that it has been saved for Federal uses. In due course of time, it once again can become an important economic asset to our State; far in excess of any economic return that would have resulted from any of the proposed private projects or uses for the property that were proposed prior to the President's visit.

Speaking for myself, I am very encouraged about the economic potential of Tongue Point. Mr. Harry Swanson, who served as chairman of the local committee of Astoria businessmen, made a very effective statement to the President. He pointed out the varied and manifold facilities that were available, including the docks, warehouses, harbor advantages, extensive housing, administration buildings, shop repair facilities, potential stone quarry, and all the other economic advantages of Tongue Point. Mr. Swanson also submitted to the President a memorandum brief which was very effectively prepared. The President read it, and turned it over to one of his aids with instructions that it be given to Mr. Ralph Dungan for his careful consideration.

President Kennedy spoke very favorably about the brief. I want to thank most sincerely Mr. Swanson and his committee for the splendid cooperation they extended to us on the inspection tour of Tongue Point. Their efforts were very helpful to me in presenting my case on behlaf of Tongue Point to the President.

We also discussed Mr. Swanson's memorandum after we got back into the helicopter, following the President's visit. Secretary of the Interior Udall pleased me very much by stating to the President that he was very favorably impressed with the Tongue Point facility. In fact, he said, he had no idea that it had such fine potential for Federal use.

Secretary Udall expressed interest in part of the facility for possible use in a contemplated project of the Interior Department. He advised the President and me that when he got back to Washington he was going to recommend to his assistants that they look into the possibility of using Tongue Point for this particular project.

In conclusion, I express thanks again to Senator Neuberger, Congresswoman Edith Green, Congressman Ullman, and Congressman Duncan for the wonderful and cooperative assistance they have given me throughout the many months in which I have made repeated representations to the White House on behalf of Tongue Point. This is but another example of the close cooperation that prevails among the Democrats on the Oregon delegation whenever any matter involving the interests of Oregon is presented to it.

Sincerely,

WAYNE MORSE.

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FEBRUARY 18, 1964.

Senator WAYNE L. MORSE,
*U.S. Senate,*
*Washington, D.C.*

DEAR SENATOR MORSE: We would like to bring to your attention a matter involving proper financing of Federal forest research in eastern Oregon. As you may be aware, there is a radical shift in forest harvests and forest product manufacturing underway in eastern Oregon. Whereas ponderosa pine lumber was the predominant forest product in the past, it is now forest products of white fir and other species from high altitude forests that are coming to the forefront in the manufacture of modern forest products. In one respect this is fortunate, for the counties of northeastern Oregon have large virgin areas of white fir and mixed species stands which are so valuable to our economy in terms of wood fiber for industry, watersheds to feed our irrigation agriculture, and as mountain recreation areas. However the multiplicity of resources and uses raises problems of forest and watershed management for which there is no body of research answers or solutions available.

We, the residents and soil conservation district members of northeastern Oregon, together with the forest product industry sorely need additional research in order to assure and sustain an orderly and multiple-use management of these pristine forests.

You may be interested to know that soil conservation districts of eastern Oregon are forming resource conservation and development committees which represent conservation districts in subregions of one to several counties per unit. And one of our first interests is this matter of obtaining harmonious, productive, and wise use of our almost untapped forests and vital watersheds through research. Specifically we see a need for new forest research on:

1. Means to achieve a type of timber management that will provide sustained production on our high-altitude forests of mixed species.
2. Means to achieve regeneration of the cutover areas despite the new type problems that have arisen.
3. Best way to preserve watershed values of high-elevation forests and avoid silty or flashy runoff waters.
4. How to carry out and coordinate management procedures for timber, water, big-game, range livestock, and recreation for these new forest situations.

We therefore request that you urge the Subcommittee on Appropriations for Interior and Related Agencies to approve funds for Forest Service research in timber management and watershed management in northeastern Oregon. In addition we urge that funds be immediately provided for design and planning of a laboratory-office to house these newly needed research workers plus the few range and wildlife research workers already assigned to northeastern Oregon.

These matters are vital to the agricultural and forest product economy of eastern Oregon. Your assistance will be greatly appreciated.

Sincerely yours,

HENRY L. SALLEE,
*Chairman of the Board of Supervisors of the Elgin Soil Conservation District; Chairman of the Elgin Watershed Committee; Chairman of the Baker, Union, and Wallowa County R.C. & D. Committee.*

FEBRUARY 19, 1964.

HON. WAYNE MORSE,
*U.S. Senator,*
*Senate Office Building, Washington, D.C.*

DEAR SENATOR MORSE: We again wish to bring to your attention the attached resolution passed by the Oregon Association of Soil and Water Conservation Districts at its meeting in Grants Pass, November 13–15, 1963.

As you know the OACD has supported soil and water investigations for many years. This resolution pertains to research needed in forests and ranges to assure continued production of vital water supplies and to diminish erosion of soil. We are concerned about the need for watershed management guides in Oregon, where water supplies are so essential for industrial, agricultural, and domestic growth. The Forest Service is presently conducting some watershed research in western Oregon but their force is not large enough to extend efforts east of the Cascade Range. The area east of the Cascades covers approximately two-thirds of the State and has approximately three-fourths of the public lands in the State.

On behalf of the OACD, I respectfully ask that you favorably consider this resolution and see that it becomes a matter of record in the House and Senate hearings on fiscal year 1965 appropriations for the Forest Service.

Very truly yours,

ELMER PETERSON, *President.*

PERTAINING TO ENDORSEMENT AND ACCELERATION OF SOIL AND WATER RESEARCH ON FORESTS AND FOREST RANGES OF THE PACIFIC NORTHWEST

The Oregon Association of Soil and Water Conservation Districts at its annual meeting held in Grants Pass, November 13–15, 1963, determined that:

Whereas the soil conservation district program for vast areas of both public and private timber and rangeland in the Pacific Northwest is dependent upon basic investigations of soil, water, and plant relationships on these important water source areas; and

Whereas there is need to accelerate the research program in order to better understand and interpret these relationships for better management of soil and water resources: Therefore be it

*Resolved,* That the OACD endorse the watershed research program of the Forest Service in the Pacific Northwest; and be it further

*Resolved,* That OACD through the NACD inform the Budget Bureau of their interest in this program and urge the Oregon congressional delegation to support increased appropriations for soil, water, and plant investigation on forests and forest ranges in the Pacific Northwest.

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FEBRUARY 24, 1964.

Hon. WAYNE MORSE,
*U.S. Senate,*
*Washington, D.C.*

DEAR SENATOR MORSE: With reference to previous correspondence from our corporation relating to the proposed program for forest research in eastern Oregon.

Improved timber management is of the utmost importance in maintaining or expanding the timber economy in the Blue Mountains. Your continued support toward obtaining appropriations for this research program is urgently needed.

Please advise if there is anything further we can do to assist with this financial problem.

With kindest regards, I remain,
Sincerely yours,

BOISE CASCADE CORP.,
*Eastern Oregon Region.*
W. H. PATTERSON,
*Region Manager.*

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FEBRUARY 12, 1964.

Hon. WAYNE MORSE,
*Senate Office Building,*
*Washington, D.C.*

DEAR SENATOR MORSE: You will recall that we corresponded with you last year about funds for construction of a U.S. Forest Service laboratory in La Grande on property set aside for this purpose by Eastern Oregon College. The laboratory

is especially important to proper development of the Forest Service program in range and wildlife habitat research for all of eastern Oregon and eastern Washington. We realize the recent drive to cut expenditures of the Government may prohibit appropriation of funds for even one-half of the proposed $500,000 falility. However we do strongly recommend that you request about 10 percent of the building cost for use this year in planning a complete and adequate structure.

You are also probably aware of the shift occuring in the lumber industry toward harvest of various types of timber stands at high altitudes and some of the numerous problems that are being encountered. Harvest of these virgin stands of true fir and other species has, for instance, created some problems of how to preserve watershed values and how to regenerate these stands after harvest. About $60,000 would be needed by the Forest Service research on the timber management problems and a like amount for research on the watershed problems. Undertaking of additional research along these lines is another reason for at least appropriating planning funds for an adequate research laboratory in La Grande.

We trust you will make appeals to the subcommittees on appropriations for the badly needed project and research.

Sincerely yours,

WILLARD K. CAREY, *President.*

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FEBRUARY 13, 1964.

Hon. WAYNE MORSE,
*U.S. Senate,*
*Washington, D.C.*

DEAR SENATOR MORSE: It is our understanding that the Senate Appropriations Committee will be considering very shortly the appropriations for the U.S. Department of Agriculture and particularly those appropriations that affect the U.S. Forest Service. As you know we have a severe problem in our area in finding the proper utilization of some of our more prolific timber resources that are at the present unused.

Under these circumstances I would urge you very much to request $120,000 for forest management research and watershed research on our forest lands. This is extremely important to the economy of all of northeastern Oregon. As you will remember we have urgently requested consideration of enough funds to build the $500,000 research facility in La Grande. At the bare minimum this year should see action on a $50,000 request to carry out the necessary planning work for a laboratory, greenhouse, and office building.

I am chairman of the Northeast Oregon Tri-County group that is just completing a study of the natural resources and economic development of Union, Wallowa, and Baker Counties. This study is being completed at an estimated cost of $59,000. One of the essential points that is coming out in this study as far as these three counties are concerned is that our main raw resource is our timber and that the great unused part of this is our species that tend toward the alpine variety that cannot be used at the present. We could undoubtedly double our potential economic capacity in this area if the proper research was made. Failure to appropriate the money for this research facility in La Grande is just going to postpone the proper utilization of this resource. I urge you to do your utmost to follow these matters to a successful conclusion.

Sincerely yours,

DAVID C. BAUM,
*Chairman, La Grande Industrial Development Corp.*

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FEBRUARY 20, 1964.

CHARLES STODDARD,
*Director, Bureau of Land Management,*
*Department of Interior,*
*Washington, D.C.*

DEAR MR. STODDARD: When I was in your office in September 1963, you indicated that you would like to have a position paper on the problem I mentioned concerning the level of BLM expenditures for weed control, as compared to county and State expenditures.

This letter is in reply to your request and presents information gathered by Mr. Ward Armstrong of our staff.

The control of noxious weeds is a particularly difficult problem, because weed seeds show no respect for land ownership boundaries. For this reason any weed

control program must include all lands in the State, at a similar degree of intensity, if any of the money spent is to have more than a stop-gap effect in halting the spread of noxious weeds.

The Bureau of Land Management owns 25 percent of the land in the State of Oregon. Although it is true that this Federal land is not valuable farmland, nor is it heavily populated, nevertheless it is a source of infestation for the more valuable land around it.

In a nutshell, the problem is that the Bureau of Land Management is spending approximately one-fifth as much per acre for the control of noxious weeds as the rest of the State. In fiscal year 1963 the BLM spent approximately $84,300 for the control of noxious weeds in the State of Oregon. Putting this figure on an acreage basis, this means an expenditure of $5.28 per 1,000 acres of land within the control of the BLM.

State and local governmental units, on the other hand, spent approximately $758,955 during this same period, fiscal 1963. This amounts to an average expenditure of $25.53 per 1,000 acres of land in the rest of the State not under Federal jurisdiction. It is readily apparent that there is quite a disparity in the level of weed control comparing BLM lands with State and private lands in Oregon.

The figure of $84,300 for BLM weed control expenditures is an estimate, consisting of the $23,500 budgeted plus an estimated 10 percent of the total $608,000 cost of BLM brush spraying operations in fiscal 1963.

It should be pointed out that of the $23,500 budgeted, $10,000 was given to Oregon State University for research on medusahead rye, leaving only $13,500 to be divided among the six BLM districts for direct control operations.

We are not sure how much of the $608,000 cost of brush spraying was of benefit to the weed control program, but some portion undoubtedly should be charged to control of noxious weeds (notably larkspur). After discussion with several of those working in the program, we concluded that 10 percent would be a reasonable figure.

The budgeted expenditure for weed control by county government in Oregon in fiscal 1963 was $260,312. Oregon counties have established 29 weed control districts as provided for under Oregon law. These districts employ 9 full-time and 20 part-time weed control officers.

Irrigation districts in Oregon are also developing extensive weed control programs. Information is available from 27 of the State's 55 irrigation districts and they report an expenditure of $30,627 for the control of noxious weeds during 1963.

The State department of agriculture expended $30,077 in fiscal 1963 for the control of ragweed. The Oregon State Highway Department spent $437,939 in fiscal 1963 for the control of noxious weeds and brush along road rights-of-way.

This brings the total to $758,955 expended by State and local governmental units for the control of noxious weeds in fiscal 1963. This of course does not include expenditures by farmers, private industry, utilities, or homeowners in the State, but this figure is nearly impossible to estimate. One railroad company alone, for example, budgeted $95,000 for the control of noxious weeds along its rights-of-way in Oregon during 1963.

A recital of fiscal information alone, however, gives no indication of the importance of the weed problem to Oregon's economy, nor of the urgency to take steps to stop the spread of weeds. Oregon is still primarily an agricultural State, agriculture being second in economic importance only to the timber industry. If noxious weeds cut down on the productivity of our agricultural lands the economy of the State suffers.

Oregon is an important seed-producing State, ranking first in the Nation in the raising of Merion bluegrass, chewings and red fescue, bentgrass, crimson clover, and ryegrass. This industry adds between $20 and $25 million annually to the gross farm income of the State. This industry is threatened, however, if noxious weed seed becomes mixed in with commercial seed. Under the Federal Seed Act no seed may be sold in another State if the seed contains more than certain permissible percentages of weed seeds declared to be noxious in the purchasing State.

To appreciate the urgency for doing something about the weed problem in Oregon it is helpful to look at a chart showing the spread of weeds over a given period of time. Records of weed acreages have never been very complete, nor are they today. Enough information is available, however, to indicate the alarming rate at which certain particularly noxious weeds have spread even in the past 10 years.

| Weed | Acres | | |
|---|---|---|---|
| | 1937 [1] | 1952 [2] | 1963 [3] |
| Canada thistle | 18,000 | 257,000 | 257,000 |
| White top | 5,200 | 20,000 | 30,000 |
| Russian knapp weed | 400 | 9,800 | 15,000 |
| Halogeten | None | [4] | 8,564 |
| Tansy ragwort | Unknown | 101,000 | 200,000 |
| Mediterranian sage | Unknown | 45,000 | 200,000 |
| Gorse | Unknown | 20,000 | 25,000 |
| Medusahead rye | Unknown | Unknown | [5] 500,000 |

[1] "Noxious Weeds in Oregon": A report from the Advisory Committee on Agriculture to the Oregon State Planning Board; 1937.
[2] "Noxious Weeds in the Columbia Basin"; Columbia Basin Interagency Committee; 1952.
[3] Estimates supplied by Extension Department, Oregon State University.
[4] Less than 100.
[5] "Medusahead—A Threat to Oregon Rangeland"; Special Report No. 149; May 1963; Oregon State University, Corvallis, Oreg.

This association is on record in favor of a substantial increase in the weed control activities of Federal landowning agencies in Oregon, including the Bureau of Land Management. We believe the above data speak for themselves in support of our position. We certainly hope that this problem receives more attention at the Bureau level in submitting future budget requests, and we will do anything we can to support increases for this program.

Sincerely yours,

KENNETH C. TOLLENSA,
*Executive Secretary.*

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OREGON WILDLIFE FEDERATION,
*Portland, Oreg., January 31, 1964.*

Senator WAYNE MORSE,
*House Office Building,*
*Washington, D.C.*

DEAR SENATOR: At the winter meeting of the Oregon Wildlife Federation held in Corvallis on January 10, 11, and 12, 1964, at the Oregon State University Withycombe Hall, the enclosed resolution was presented. It is our desire that you will study and consider it.

The action taken at our meeting is noted at the bottom—along with the vote tallied.

We had one of our best meetings in years, with the largest attendance—the most clubs represented and the most guests.

Thank you for your consideration on this resolution.

Sincerely,

POLLY DE TEMPLE
Mrs. Polly De Temple,
*Secretary.*

RESOLUTION NO. 8

Whereas the BLM (Bureau of Land Management) is administrating over 450 million acreas of our Nation's public lands, managing the land itself, grazing, minerals (gas and oil), forests, range vegetation, recreation, wildlife, soil and water; and

Whereas estimates indicate over 50 million acres of BLM lands (not including Alaska) is indicated to be of important recreational values; and

Whereas the BLM recreational outdoor planning for sites and facilities has continued, with planned sizable capital investments for recreation, with little or no money being appropriated for recreational outdoor development; and

Whereas the BLM has annually returned many millions of dollars to the U.S. General Treasury over and above the agency's yearly appropriation: Now, therefore, be it

*Resolved*, That the Oregon Wildlife Federation in session in Corvallis, Oreg., on the 12th day of January 1964, go on record in support of, and urging our National Congress to appropriate funds in the annual appropriation of the BLM for outdoor recreational development of sites, facilities, access, etc., making possible the complete multiple uses on BLM public lands; and be it further

*Resolved*, That this resolution be sent to the National Wildlife Federation meeting in Las Vegas, Nev., in March of 1964 for their approval, support, and appropriate action; and be it further

*Resolved*, That copies of this resolution be forwarded to the Oregon delegation to Congress, BLM, and where else deemed necessary for their support in seeking funds hereto proposed.

Submitted by:

PUBLIC LANDS COMMITTEE, OREGON WILDLIFE FEDERATION,
Fred V. Koehler, *Chairman*.

Considered by public lands committee.
Recommendation: Do pass.
Vote: Yes, 55; no, 2. Carried.

GENERAL STATEMENT

Senator MORSE. My experience of many years before this committee satisfies me that any statement a Senator puts in the record is carefully analyzed by the staff and read by the members of the committee. So I have no concern about these Oregon projects receiving meritorious treatment from this committee on the facts simply because I put this statement in the record. I need not tell you that there are some who would think I should sit here and read it, but I know that won't be necessary.

TONGUE POINT INDIAN SCHOOL

I wish to devote most of my time this morning to a discussion of the proposed Indian school at Tongue Point, and I shall supply some background information concerning Tongue Point, for the printed record to date does not contain such information. I have read and studied with great care the testimony that has been given to this committee by the Indian Bureau to date. I have studied your hearings of Friday, February 21, 1964, and the questions that the Chairman and Senator Bartlett asked Mr. Nash and the other Indian Bureau people.

This background information on the Tongue Point situation is being supplied, because I respectfully say in my judgment the Appropriations Committee has the duty to consider this request of the Indian Bureau in the light of this historic background.

TONGUE POINT NAVAL BASE

Tongue Point Naval Base, Mr. Chairman, was built as a seaplane base for the Navy during World War II. With the arrival of the jet plane it became oblolete for that use, and its deactivation was announced.

The record is perfectly clear. I was contacted immediately when the decision was reached to deactivate Tongue Point as a Navy base. I should tell the Senators on this committee it was expected by many people in Oregon that I should fight the deactivation. I did not. I studied the facts and found no quarrel with deactivating Tongue Point as a seaplane base. I have yet to vote in the Senate—and I am going on my 20th year now—to keep a Federal installation going for a purpose that has become obsolete. And there is no doubt that it was obsolete for the then Navy use.

As you recall, there were 73 installations that were deactivated, many of them smaller than Tongue Point. They were deactivated because the Defense Department found they were obsolete for their

primary purposes, and the President of the United States approved. I agreed with the President.

DEACTIVATION CREATED DEPRESSED AREA

Mr. Chairman, the deactivation of Tongue Point pulled the economic rug out from under Astoria and Clatsop County, Oreg., and put it at the bottom of the totem pole as far as depressed areas in the United States are concerned. You couldn't find an area in West Virginia or Appalachia or Kentucky or Michigan that is in worse shape than Astoria and Clatsop County. Store after store closed, hundreds of people moved out, and houses became vacant.

So I, as a Senator from Oregon, and the entire Oregon congressional delegation were confronted with a depressed area pocket. I went to the President of the United States, and I said, "Mr. President, I want you to send out someone to take a look at this situation, because you can't tell me that we can't find a Federal use for Tongue Point simply because of the nature of the facilities." You will see all this when you analyze the material that I am leaving with you this morning.

SUGGESTED FEDERAL USE FOR TONGUE POINT

There must be some Federal use for Tongue Point. This is particularly true, Mr. Chairman, and Senator Bartlett, because these are permanent facilities. I am going to leave with you this Tongue Point brochure prepared by the Astoria Chamber of Commerce. Mr. Chairman, if you could move these Federal buildings, theoretically, to Constitution Avenue in Washington, D.C., they would take their place among the other Federal buildings. These are permanent buildings. These are in excellent condition. They are going to be here for decades to come. It would be a shame to have had General Services tear down and junk these buildings.

Mr. Chairman and Senator Bartlett, there are at Tongue Point—let me say good naturedly, Navy admirals know how to build homes—there are at Tongue Point a few homes that were occupied by the top naval officers that you could move to Spring Valley in Washington, D.C. They would compare with the wonderful homes in Spring Valley. There are many, many other smaller homes of the duplex variety that would take prominent places in many of our so-called medium-class residential areas of any American city.

And so I was confronted here with a project in which the Federal Government had spent—and note my figure—somewhere between $13 and $18 million. And you say, "Why can't you tell us how much?" No one in this Government is able to tell you how much. We are trying to find out. Some of the records appear to have been lost. It is very interesting that we can't find all of these records.

HOMES AND HOSPITAL AT TONGUE POINT

I say most respectfully that the Navy overspent at Tongue Point. This became a showplace for the Navy. But it does not change the fact that the taxpayer's investments are there. We have over 400 family dwelling units at Tongue Point. We have a hospital—of course, they have taken all the equipment out—but the hospital at Tongue Point would be the equivalent of Sibley here in Washington

as far as the nature of its construction is concerned. It is not as large as Sibley, but we have a wonderful hospital at Tongue Point. We have docks and wharves, ship berths, and a railroad spur line, without a doubt, we have a great potential for a multiuse, multipurpose development at Tongue Point.

### Tongue Point Turned Over to General Services Administration

As you know, President Kennedy became very much interested in the pockets of depression in this country. Tongue Point was turned over to the General Services Administration. I went through quite a battle because I found that a group of businessmen in Astoria, Oreg., were about to undertake what I characterized as a steal of Tongue Point from the General Services Administration. I received a lot of criticism from them at the time, but I proved my case. They were about to get Tongue Point for $920,000, despite the fact that we had $13 to $18 million invested in it. I happen to think the total investment is nearer to $20 million when we get all the records.

### Disposal of Tongue Point

So I started an attack on the disposal of Tongue Point. The businessmen had a deal with General Services Administration under which GSA would transfer Tongue Point to the city of Astoria, and then within 30 days Astoria would transfer Tongue Point to this group of businessmen for $50,000 more—approximately $970,000.

You may recall that I made a series of speeches on the floor of the U.S. Senate disclosing what I said was a scandal. I pointed out that the General Services Administration was about to commit an illegal act; that under the law this was a subterfuge; that they had no authority to transfer property to the city as a conduit for private beneficiaries.

If the deal had gone through, what would they have done? Mr. Chairman, I am satisfied they would have dismantled Tongue Point.

I pointed out—and I was sustained by the legal counsel for the President—that the General Services Administration just couldn't do this. President Kennedy became so concerned about this—and I think if you find it necessary you ought to call some witnesses on this—that he appointed as his special assistant on the Tongue Point matter who worked on this for months, Mr. Ralph Dungan. Mr. Dungan cannot only verify what I tell you this morning, but he can supply you with many additional facts as to what he did as the representative of the President in the process of getting Tongue Point reactivated.

### Reactivation of Tongue Point

On September 27, President Kennedy and Secretary of the Interior Udall and their party joined with Maurine Neuberger and myself and Congressman Duncan and Congressman Ullman—Edith Green would have been there but she had a conflicting appointment and couldn't be there—and we flew into Astoria. The President and Secretary Udall made a personal inspection of this base. I shall never forget it. The President spoke to the public there. He issued his press release—which I shall ask to have inserted in the record as part of my testimony this morning following my general statement. In this press

release he announced that Tongue Point would be taken off of the surplus property list and put back on the list of reactivated Federal property.

You will see from his statement that he verified the position that I had taken as to the importance of preserving this facility for Federal use. I can tell you—and Ralph Dungan can so testify—that in our various conferences with the President, the President found that there were many uses—Federal uses—to which this property might be put.

### Many Uses of Tongue Point

The next point I wish to make, Mr. Chairman and Senator Bartlett, is that this facility will never be completely used just for an Indian school. It is too large a facility for an Indian school alone. But some department of Government has to be given jurisdiction over it for administrative purposes first. They are going to start out with an Indian school if approval is granted. But there are other facilities that can be put to compatible uses—the docks and the wharves, the warehouses, the landing strip. The President's proposal originally, as you will see from his statement, was to use it as a helicopter rescue base. But he added, in his statement:

> Early next year the Department of Defense will establish a Weapon System Acquisition Management School here at Tongue Point. This school will be jointly staffed by our military departments and will provide training for senior civilian personnel and senior military officers for all the services and the Defnese Department.

Chairman Hayden. Has it been decided that that will be done?

Senator Morse. No, this is what the press release said. The press release also noted:

> Shortly after this training begins, the Coast Guard will establish a helicopter rescue base here.

I want to point out that these are minor activities. They will make use of all those facilities that can be put to use, as Mr. Dungan will tell you if you call him up here, as soon as they can get this organized. The facilities the Indian school doesn't need will be put to other Federal uses.

### Coast and Geodetic Survey Installation

The next point I wish to make, because it is a part of the situation, is one that greatly disturbed the President and Secretary of Commerce Hodges. The Oregon delegation had asked for consideration of Tongue Point for the expansion of the Coast and Geodetic Survey installation programs. This expansion will cost a huge sum of money which this committee has approved. Without the knowledge of the Secretary of Commerce, they decided to locate that expansion program in Puget Sound. The contracts were all entered into before the Secretary of Commerce became aware of it. When we were told as a delegation that everything was set, and that was the end of it, we went down to the Secretary of Commerce and protested. And he had Admiral Karo there; the admiral was then head of the Coast and Geodetic Survey. And when we got through with the presentation of our case on Tongue Point—I put it mildly, but ask the Secretary for himself—he was shocked.

The Secretary of Commerce wrote to me as senior Senator from Oregon and head of the Oregon delegation, a letter of apology for the way this matter was handled by the Department of Commerce. In fact, President Kennedy said:

Wayne, I think you are the only Senator who ever got a letter of apology from a Cabinet officer.

And the President too was concerned with it. He said:

The difficulty now is that all these contracts have been let and the appropriations approved, and we can't do anything now about locating the expanded program for Coast and Geodetic Survey in Tongue Point. But—

he said—

you were just as right about this as could be, and we have got to find another Federal use.

And so that led to the President's inspection and the President's decision.

My plea to the committee is that you have your staff or the committee itself check with Mr. Dungan about the whole history of this, and the determination on the part of President Kennedy that this project, this installation, should not be wasted.

### Depressed Area Pocket

I come now to my next point. This is a poverty pocket. This is a depressed area. And we have Federal uses to which Tongue Point, within that area, should be put. I think we ought to put it to some Federal use.

That brings us right up against the Indian school proposal of the late President, and of Secretary Udall.

When we completed our inspection on September 27, we got back on the helicopter to ride to Seattle. During that whole trip to Seattle President Kennedy and Secretary Udall and I discussed Secretary Udall's recommendation to the President. He said, "I can't make a decision now, Mr. President, but I am greatly impressed." He said, "We have to build a new Indian school, we have to build an Indian school that will provide not only high school training, but we have a lot of Indian youths who, if you are ever going to really integrate them into American economic life, must have some special vocational training."

### Vocational Training School

And he talked about the facilities for the development of an Indian school with vocational educational features.

May I digress a moment to say that we have also discussed—and it is a great potential, once you get these Indian school facilities developed—we have also talked about developing a vocational training school at Tongue Point in connection with the Peace Corps, both outgoing and incoming. That is, we discussed the possibility of bringing in from Asia, Latin America, and Africa certain youths whom we want to train to be community leaders with special skills—tractor skills, machinery skills, and carpentry skills.

The President was very, very much interested in that potential, too. It is still in the offing and still can come about.

But Secretary Udall said on that trip to Seattle that he thought that this was ready made for the development of the type of Indian school that they are going to have.

So that brings us now to the issue before the committee.

### Recommendations for Indian School

As a result of all this, Mr. Chairman, and members of the committee, Secretary Udall did recommend this Indian school. And the Indian Bureau has submitted its recommendations to you. And that is what I wish to comment on now.

Going back, Mr. Chairman, to my discussion about the letter that I received from the Secretary of Commerce March 18, 1963, I would like to have that letter inserted in the record at the time that I was talking about.

Chairman Hayden. That may be done.

(The letter referred to follows:)

The Secretary of Commerce,
*Washington, D.C., March 18, 1963.*

Hon. Wayne Morse,
*U.S. Senate, Washington, D.C.*

Dear Senator Morse: I have reviewed in detail the decision made last year by the Coast and Geodetic Survey to locate its Northwest Pacific Ship Base and Oceanographic Laboratory in Seattle rather than Tongue Point, Oreg. I have concluded that the overall economy of the Government would have been better served if the base had been located at Tongue Point. Unfortunately, we cannot retrace our steps and revoke the contract that was entered into without my personal knowledge by GSA August 13, 1962, on behalf of the Coast and Geodetic Survey for a site in Seattle. That contract is binding and it is impossible for the Government to escape its terms.

If it had not been for your forceful presentation of the comparative advantages of Tongue Point over the Seattle location, this matter would not have been as carefully reviewed by me as it ultimately was. I may offer little comfort to you or your constituents at this late date, but it may give you some satisfaction to learn that because of the mistakes made in the Tongue Point decision, I intend to see that similar decisions in the future are more carefully made and at a much higher level than this one. I want to apologize to you for this most unfortunate incident on behalf of the Department of Commerce. I also want to apologize for the fact that you were never definitely notified that the Coast and Geodetic Survey had reached a final decision on the subject.

This was handled badly and I may say somewhat arbitrarily by Admiral Karo of the Coast and Geodetic Survey.

Sincerely yours,

Luther H. Hodges,
*Secretary of Commerce.*

### Budget Request for 1965

Senator Morse. Now, we come to the Indian school.

As you know, the Indian Bureau recommends $2,042,000 for the Tongue Point conversion for fiscal 1965, and $2,921,000 reprograming for 1964. The Bureau's testimony stated what President Kennedy understood at the time, namely, that Secretary Udall estimated it would cost in the neighborhood of $3 million more for original construction if you built the same facility that is available at Tongue Point—$3 million more than it would cost to rehabilitate and remodel the facilities that they have there.

In your hearings, Mr. Chairman, a colloquy took place between the Chairman, Senator Bartlett, and Mr. Nash of the Indian Bureau. I quote from the hearings:

BUILDING NEW FACILITIES AND CONVERTING OLD FACILITIES

Senator BARTLETT. Commissioner Nash, how much more would it cost to build new facilities than it will cost to convert the naval facilities?

Mr. NASH. In that particular location?

Senator BARTLETT. Right there.

Mr. NASH. I would say you could not expect to build there new for less than $7,500 per seat-bed. In other words, for a thousand-child school $7.5 million instead of $5 million.

Senator BARTLETT. $2.5 million more?

Mr. NASH. Yes, sir.

Senator BARTLETT. And will the reconverted establishment be as satisfactory in every way as the new?

PREFERENCES

Mr. NASH. If we can have our druthers, Senator Bartlett, we always prefer to design and build from scratch. But we are successfully using Mount Edgecumbe, which was a Coast Guard station, for a school, although we know we are going to have to come back and ask for rehabilitation and remodeling money for Mount Edgecumbe.

We are using at Brigham City, Utah, the Intermountain School. That was not designed or built for a school but we have 2,200 students there, and are using it successfully.

Then, Mr. Chairman, you asked a series of questions in regard to maintenance cost. You said:

Is there a difference in the estimated cost of operation and maintenance between the proposed Tongue Point facility and a new school?

OPERATION AND MAINTENANCE

Mr. NASH. Yes, sir. When we took over these facilities that were not designed for school purposes, we saved a lot of money on construction costs, but the operation and maintenance cost has been somewhat higher. We estimate that the operation and maintenance at Tongue Point will run about $500,000 a year. In a school of 1,000 children, we would normally expect between $250,000 to $300,000 operation and maintenance cost.

I might add, sir, that the full facilities will not be exhausted when a thousand children are enrolled at Tongue Point. We believe that it may be possible in the course of time to develop this for another thousand children without adding greatly to the costs. The reason for that is that the Navy Heights housing development has 368 dwellings and they will not all be used for a school of 1,000 children.

And he goes on to point out that in his judgment it will cut down another thousand.

I am not going to quarrel with the figures, whatever the figures are, as the facts will show, I will stand on my figures.

MULTIPLE-USE PROGRAMS FOR TONGUE POINT

But at the beginning of my testimony this morning, Mr. Chairman and members of the committee, I pointed out that when this Indian school goes in, you haven't finished the use of tongue Point. There are other uses to which the facility can be put—multiple-use programs. When you take over the entire facility for Federal use, in my judgment you are going to find a great savings, even in excess of what Mr. Nash has indicated.

But let's put it in the worst light. Let's just take the position now that we save $2.5 to $3 million. I think you will find in the record that I have inserted here that the representation made to President Kennedy was that we would save at least $3 million, in round numbers. Just take the interest in that saving over a period of years, Mr. Chairman, and you have got about $90,000 a year there in interest saving.

I mention this because if you want to use a lead pencil on this, we have to look at every dollar that we can possibly save.

### Assistance for Depressed Areas

Let's assume that there is going to be a little higher maintenance cost when all is said and done. We have to make up our mind in the Congress as to whether or not we are going to come to the assistance of these depressed areas, or just talk about coming to their assistance; whether it is in Kentucky or Appalachia or West Virginia or wherever. You have a problem in the Astoria area. As I said, it is at the bottom of the totem pole of depressed areas in the whole United States. That is the information that was submitted to President Kennedy to which he referred again and again in his conversations with Ralph Dungan and others. He had said there is no doubt about the fact that we have a terrible economic situation in Astoria.

### Population of the Area

Chairman Hayden. How many people are in that depressed situation?

Senator Morse. You mean how many people are depressed?

Chairman Hayden. Yes.

Senator Morse. Including those that are still there?

Chairman Hayden. Yes.

Senator Morse. I am told that the total present population of Astoria is about 9,000 in the city itself. I would say in the Clatsop County area, which is the whole county that is in this terribly depressed area, that I would be engaging in an understatement if I said you were dealing with 15,000 to 18,000 people.

### Depressed Real Estate Values

I would also point out that you are dealing with an area in which real estate values have dropped to the bottom because of the unemployment and the dependence that they had placed upon the naval base.

I am making my plea this morning, gentlemen, in support of the opportunity that this proposal gives to really come in and help a depressed area.

You can throw this one aside on the ground that you may have this problem or that problem with it, but you still haven't helped a lot of the people there.

### Reprograming Effect on Alaskan Schools

Let's go to this reprograming matter. I am not one to sit here in the Senate and try to do harm to the interest of any other Senator and I don't expect that treatment on their part toward me. I was very much concerned, may I say to Senator Bartlett, as to whether or not my urging with respect to Tongue Point was going to do harm to a school that they are planning to rehabilitate and build up in Nome. All I can say is that the Indian Bureau tells me that as far as 1964 is concerned, my request for reprograming isn't going to affect that school, because they couldn't possibly, apparently for construc-

tion reasons, use that money up there until 1965, but that they have it budgeted for 1965, the school is going to go ahead in 1965. And when I found that out, I think the Senator from Alaska knows me well enough to know that I was greatly relieved that I wasn't urging something here where, with justification, it could be said that I was asking for something for Oregon that was going to be injurious to another jurisdiction that might also be in a bad economic plight.

Senator BARTLETT. I am sure that is the case.

### REPROGRAMING EFFECT ON ARIZONA SCHOOLS

Senator MORSE. Then, Senator Hayden, I became concerned about Arizona. I was told about the Navajo-Hopi problem down there—they are going to have to have some school facilities down there. The reply given to me was that they are in such a litigious tangle down there that for 1964 they won't be proceeding anyway, but again in 1965 they plan to go ahead.

I was also told—and you can check the facts better than I can as an Appropriations Committee—but I was told that the facilities that the Indian Bureau is asking for at Tongue Point are going to have to be built in any event in the immediate future to supply the educational facilities that these Indian youths need, and that it is not going to affect the educational program of the Indian Bureau in regard to established schools.

So we have to make a choice as to whether or not this is a wise expenditure for all the reasons that I have testified to here this morning.

### INTEGRATION OF INDIAN YOUTHS

Before I take your questions I want to say this: The old bugaboo has been raised as to whether or not Wayne Morse isn't fighting for segregation, and that this whole program is against Wayne Morse's stand on civil rights. I good-naturedly reply that those who so argue don't know their Indian law, and they don't know what the Federal statutes provide, and they don't know very much about Indian chiefs, and they don't know very much about Indian culture. They do not know that after all, Indians have rights to remain in a tribal culture if they want to. I happen to believe the sooner you can get them out of the reservation and our of the tribal culture and get them integrated, the better. But that doesn't justify our throwing a generation away, and that doesn't justify our permitting Indian youths to become juvenile deliquents and public charges. Any of us who know anything about Indian reservation problems know whereof I speak, because I have many Indians in my State.

I am fighting for the best form of integration of Indian youths, and I will tell the committee why. You prepare these youths to take their economic place in our society, and you prepare them for integration. But it they can't go out and hold jobs, if they aren't trained to hold jobs, forget about them being economically integrated in our society; they never will be, and they will continue to be the problem many of them are now.

### SCHOOL DROPOUTS AND ILLITERATES

Also, don't forget that the Indian Bureau pointed out that the Bureau is dealing somewhat with some older Indian youths, school

dropouts, or those from rural areas who have reached the ages of 14 and 15 and can't speak a word of English, and to a large extent are illiterate. There must be a school for those young people.

The Tongue Point School isn't going to interfere with any Indian facility in the United States; that they assured me. I have been very careful to ascertain whether or not Wayne Morse is trespassing upon the jurisdiction of other Senators. I am satisfied that I am not; that we are dealing with a group of people, of youths who are going to have to be put in a boarding school somewhere, and brought under a considerable amount of surveillance and special training. I hope that the trade school aspects of this proposed Indian school at Tongue Point will become the dominant feature of the training, because I think that is what they need. The existing Indian schools, like the Chemawa School in my State and the schools in your State and elsewhere in the West, are doing the academic job for the Indian children who don't go to public schools. Many of them want to go to public schools, but their parents don't want them to go to public schools or won't put them in public schools, and the reservations don't supply them with the facilities that will train them.

### Indian Tribes Legal Rights

And so I wanted to mention this segregation bugaboo, because there are those who want to defeat this program by saying, what we ought to do is send them all to public schools. That is fine theory, but it just can't be done. It won't solve the problem. We must not forget that these Indian tribes have their legal rights, and you can't walk into a tribe and say, this is what you are going to have to do. They have a right to get the kind of training that I am talking about.

And so long as I am in the Senate, I am going to work to provide the Indian youths with the best education that we can give them. I think this school is needed.

There are many other things I could say, but in essence this is our case, Mr. Chairman and members of the committee. I hope the Appropriations Committee will not act upon this just on a dollar and cents basis. I hope the Appropriations Committee will take into account the points that I have made here in regard to our obligation to help depressed pockets all over this country.

### Social and Economic Needs

Wayne Morse is proud of one thing: In my 20 years in the Senate no Senator can show a single vote of mine in which I put the dollar sign ahead of a social need, an economic need of depressed people in any area of this country. I have fought for Appalachia, I have fought for West Virginia and Kentucky and Michigan depressed areas, and every other pocket of depressed areas that anyone has ever presented to me.

I come before you today on the merits. I think my record before this committee over the years has been one of asking you to support me only when I have a sound case. I think I have a sound case. I would be glad to take an examination on it, but I do want to read the concluding paragraphs of my prepared statement.

### Domestic Conservation Needs

As the members of this subcommittee know, in the last several months I have waged a strong battle to curtail the amount of money spent under the foreign aid program. I will not reiterate my views on the improvements that can be made on this program, but I wish to emphasize that some of the savings we have made in foreign aid should be used to augment expenditures for domestic conservation needs.

The action that was taken on the foreign aid program has been of positive value to helping the President keep the entire budget below the $100 billion mark. I suggest that we consider our conservation agencies as primary agencies to receive some of the funds we have saved on foreign aid. Studies that have been undertaken show that the areas of heaviest rural poverty are also areas of the largest concentrations of Federal lands. Why? Perhaps it is because the Federal lands are either in the backwater of economic activity or because the lands held by the Federal Government have been subjected to constant abuse over a long period of time, resulting in their deterioration before intensive management benefits could be provided. The Federal Government, therefore, has a tremendous job to do in building up its public land resources, particularly the rangelands of the West.

### Forest Service and Bureau of Land Management

#### REFORESTATION

Under the circumstances, I urge this subcommittee to estimate a reasonable amount that could be added to the budget for the following types of activities on lands of the Forest Service and the Bureau of Land Management: Reforestation, range revegetation, watershed protection treatment, and the developing of outdoor recreation facilities. Vigorous programs in these areas would be of great value. Additional work on reforestation would enable allowable cuts on the national forest and public lands to be moved upward. This in turn, would provide more timber to be converted by mills into lumber and other forest products.

#### RANGE REVEGETATION AND WATERSHED PROTECTION

Increased range revegetation and watershed protection would provide for a greater amount of grazing on the national forests and the BLM lands, thereby increasing the annual grazing capacity and enabling the researchers to obtain better grazing than is now possible.

It is my recommendation that an increase of not less than $20 million be allocated to the Forest Service and an increase of not less than $10 million be allocated to the Bureau of Land Management to augment the level of conservation work on the lands under their respective jurisdictions.

### Appreciations for Help to State of Oregon

In closing I wish to thank the subcommittee, the full committee and the Chairman of the Senate Appropriations Committee, Senator Hayden, for many years of help to the State of Oregon and for your fairness and understanding in passing upon appropriations requests for the Forest Service, the Bureau of Land Management, the Bureau

of Indian Affairs, and other agencies within the Departments of Agriculture and Interior.

I am most appreciative of the action that you have taken over the years on requests that relate to the State that I have the honor to represent in the U.S. Senate.

Again, I thank the Chairman and members of the subcommittee for having taken time out of your busy schedule to hear my presentation this morning. And I rest my case and await questions.

Chairman HAYDEN. You have made a very impressive statement, sir.

Senator MORSE. Thank you very much.

Senator BIBLE. May I ask a couple of questions?

Chairman HAYDEN. Yes sir.

### APPALACHIA OF THE PACIFIC

Senator BIBLE. As I understand the thrust of your argument, it is that Tongue Point and that area around Astoria is pretty much the Applachia of the Pacific.

Senator MORSE. It is.

Senator BIBLE. And you had said there are 9,000 people in Astoria and 17,000 or 18,000 in the area, something of that range.

Senator MORSE. Yes.

The Astoria Chamber of Commerce states that between 1960 and 1962, Astoria had a population loss of 1,354; between 1950 and 1962, the population of Astoria decreased by 5,050.

### UNEMPLOYMENT

Senator BIBLE. What is the percent of unemployment? Maybe you have developed that. I should think it would be helpful to you to have it for the record.

Senator MORSE. We will supply it for the record. But it has been all this time 10 percent. But our real problem is that they are moving out, we are losing the population. And the businesses are going bankrupt, and the stores are becoming empty.

In fact, in the past few years, Astoria has lost about 2,000 population. Had these people remained, the unemployment figure would have been tremendous.

(The information supplied by Senator Morse follows.)

According to the Department of Labor, Bureau of Employment Security, the total average unemployment for Clatsop County—Astoria being the major city in Clatsop County was as follows:

| | *Percent* |
|---|---|
| 1958 | 10.0 |
| 1959 | 7.9 |
| 1960 | 7.0 |
| 1961 | 8.7 |
| 1962 | 7.4 |
| 1963 | 7.4 |

Senator BIBLE. I am not questioning your conclusion, I was thinking that maybe the factual background that led to that conclusion might be helpful in developing your case.

Senator MORSE. And we will supply you more statistical information on it.

OREGON INDIAN POPULATION

Senator BIBLE. How many Indians do you have in Oregon?

Senator MORSE. I do not know the total population. We have the Klamath, the Warm Springs, the Burns-Paiute and the Umatillas—we will supply that. I would guess that we probably have 10,000.

The information supplied by Senator Morse is as follows:

According to the 1960 census the total number of Indians in Oregon is 8,026. As of June 30, 1962, the Bureau of Indian Affairs estimated that there are 2,305 Indians on reservations or within the jurisdiction of reservations. The reservations are: Warm Springs, Umatilla, Burns-Paiute, and Celilo.

Senator BIBLE. And the use of this facility would be——

NATIONWIDE INDIAN VOCATIONAL TRAINING SCHOOL

Senator MORSE. I want to stress that this is not an Oregon facility, this is going to be a nationwide facility to take the special students that the Indian Bureau finds have to be boarded out, and where family conditions, reservation conditions, personal problems of the students themselves are such that they have to bring them together in boarding school arrangement for the special training they need. You just couldn't put them in an accredited public school and expect them to survive.

Senator BIBLE. I understand you point on that score. But I was wondering whether this would serve the Pacific coast area: Washington, Oregon, Nevada, Arizona, New Mexico?

Senator MORSE. It is nationwide.

Senator BIBLE. I am sorry, I missed thc original part of our statement.

Senator Morse. It is a nationwide school for this type of student.

ANTICIPATED SCHOOL POPULATION

Senator BIBLE. What is the anticipated school population?

Senator MORSE. We are starting out with a thousand, but as Commissioner Nash testified, on February 21 they hope to take it to 2,000. And I think you will find it won't be limited in the long run to 2,000, it will go beyond that.

Senator BIBLE. One last question.

Is there any comparable school in the United States to the one that you are espousing?

Senator MORSE. Not on the particular type of program that they are contemplating here. But they have testified that this kind of a school will have to be built somewhere; if you couldn't do it here you would have to have it somewhere else.

LOSS OF BASES IN NEVADA

Senator BIBLE. I am very sympathetic, Mr. Chairman. To date we have lost one base in Nevada, it looks as if we are going to lose a couple of more bases, and if there is some type of other facility that can be put in to take care of the shutdown in these areas it would be helpful, because they do pose a problem to the entire population and the economy.

Thank you very much.

Thank you, Senator Morse.

Chairman HAYDEN. Questions?
Senator BARTLETT. A question or two, Mr. Chairman.

TONGUE POINT DEACTIVATION AND DISPOSAL

When was Tongue Point deactivated, Senator Morse?
Senator MORSE. It was officially deactivated in the early part of 1961.
Senator BARTLETT. And when did General Services propose to dispose of it under the conditions which you informed the committee were intolerable.
Senator MORSE. That was early last year, I think that battle was raging around April or May.
Senator BARTLETT. Of 1963?
Senator MORSE. Yes.
Senator BARTLETT. Has the unemployment situation continued to worsen since the base was closed?
Senator MORSE. Yes, it has.

DEACTIVATION AND UNEMPLOYMENT

Senator BARTLETT. Do you know how many people were at Tongue Point at the peak? I am just trying to arrive at how many it might accommodate.
Senator MORSE. No, I do not, but I will supply it for the record. There were several thousand, but I don't want to make a guess. My guess is between 3,000 and 4,000.
(The information supplied by Senator Morse is as follows:)

The Department of the Navy indicates that in 1951 a total of 3,039 personnel were employed at Tongue Point; 2,590 were military personnel and 449 were civilian.
The Astoria Chamber of Commerce indicates that on March 25, 1952, 2,940 military and 890 civilian personnel were employed at Tongue Point. By June 1954, the totals had been reduced to 1,784 military and 436 civilian personnel.

Senator BARTLETT. It is very close to Astoria, according to the photographs?
Senator MORSE. Adjacent to the city limits.

COAST GUARD FACILITY

Senator BARTLETT. The city limits. The Coast Guard has a facility at Astoria nearby.
Senator MORSE. Not a substantial facility now, we are trying to get one in. It has a rescue base.
Senator BARTLETT. Do they have their own establishment?
Senator MORSE. They use one corner of the base.
Senator BARTLETT. I have been wondering why this was sought by way of reprograming instead of by way of a submission in the 1965 budget. But I think you have explained that. At least I inferred it was desired that this be hastened to meet the unemployment problem.
Senator MORSE. That is right.
Senator BARTLETT. I have no more questions. Thank you.

INDIAN STUDENT NEEDS

Senator MORSE. I should also mention Secretary Udall's statement to the President in the conversation I was telling you about. Due to the needs, the special needs of these special Indian students, he thought they ought to hurry it up.

Senator BARTLETT. I do want to correct the record at one point. It is my understanding that the Indian Bureau had planned to build the dormitory at Nome in the summer of 1965.

TONGUE POINT INDIAN SCHOOL EFFECTS ON OTHER STATES

Senator MORSE. I want whatever the facts are, Senator, I want them in the record. You know how we worked in the Senate. I simply said to the Indian Bureau—and knowing me, you know I would say it—I said, "I want to know if I am going to be hurting Senator Bartlett or Senator Hayden or any other Senator from any other State where there is a large Indian population. They proposed the Indian school to me, and I said, 'Fine, if you can use it as an Indian school, but I want to know what the effects of it are going to be on other States.' "

And then I got the argument that I presented this morning, that this kind of a special facility has to be built some place. And all I can say is that it is my understanding that for various reasons they weren't going to be able to use much of the reprograming money in 1964, but to whatever extent they were I want the record to show.

Senator BARTLETT. And that may be a statement of literal fact. I was just trying to produce for the record my understanding.

ECONOMY IN FOREIGN AID

Senator BIBLE. Just one closing observation. I couldn't agree with my distinguished friend from Oregon more as to one fine area that we might promote economy; and that is in the foreign aid field. I have no problem at all in trying to help those in the United States in areas such as he describes before we help somebody overseas. And I think I heard him speak yesterday on South Vietnam and certain other trouble spots of the world. And they pose problems. But they also cost a lot of money. And I think where we are up to some hard choices economywise that there isn't anything un-American about changing the American position.

Senator MORSE. It makes it very difficult for me, Senator Bible. I want to help my Government in doing the essential thing in foreign aid, and always have. I think we have overextended ourselves. But I can't meet the arguments back home. If we have a depressed area in Astoria—we have it in other places but particularly Astoria—they say, "What do you mean trying to help some depressed area in Pakistan when you have all these Oregon people out of work; how do you expect we are going to raise the taxes to help the people in Pakistan without strengthening our own economy?"

I think it is an understandable argument.

STRENGTHENING OUR ECONOMY

Senator MORSE. I am going to do what I can to bring about great savings in the program to benefit our own economy and do just the essentials in foreign aid and no more.

Senator BIBLE. The voice of the senior Senator from Oregon, as we all know, is a strong voice, and I think he knows my position on this problem.

Senator MORSE. You have been very helpful to me.

DEPENDENCY ON FISHING INDUSTRY

Senator BARTLETT. May I say, I sympathize, having as I do a particular interest in the commercial fisheries. I know Astoria has been largely dependent upon the taking and packing of salmon. The new building activity on the Columbia has caused this industry to diminish in size and volume, with resulting unemployment. Here we have a region that ought to be highly productive, in which you ought to have no unemployment, one of the most beautiful spots in the world and yet it is depressed. I want to do everything I can to help.

Senator MORSE. It is the fishing industry that is one of the principal activities supporting the economic life of Astoria. They depend upon it very much. But as you say, it is going down.

My assistant, Mr. Berg, points out that they import a lot of frozen tuna and pack it in Astoria. And those packing plants are supplying a considerable amount of employment, but not enought to take care of anywhere near the need.

You have been very gracious, Mr. Chairman.

Thank you very much.

Chairman HAYDEN. Senator Boggs.

If you have a prepared statement you may include it in the record.

SURF CLAM RESEARCH IN THE BUREAU OF COMMERCIAL FISHERIES

## STATEMENT OF HON. J. CALEB BOGGS, U.S. SENATOR FROM THE STATE OF DELAWARE

SUPPORT FOR THE RESEARCH PROGRAM

Senator BOGGS. With your permission, I would like to have the prepared statement included.

(The statement referred to follows:)

Mr. Chairman, I appreciate very much the opportunity to appear this morning in support of the proposal to undertake surf clam research in the Bureau of Commercial Fisheries in the Department of the Interior.

Senator Case, of New Jersey, has already indicated the necessity for moneys to undertake this vitally needed research and I would like to give my wholehearted support to his statement and add just a few personal comments.

The Atlantic coast surf clam fishery currently produces approximately 30 million pounds of raw clam meat per year. Surf clams are known to occur in coastal waters from Newfoundland to the Gulf of Mexico. However, populations of sufficient density to support commercial fishing activities have been located only along the shores of Long Island, N.Y., and off New Jersey. Most of the fishing is conducted approximately 15 to 25 miles southeast of Point Pleasant at

depths ranging from 60 to 90 feet. There are about 30 vessels engaged in the New Jersey surf clam fishery.

The problem, Mr. Chairman, being faced by the industry is such that productive beds are rapidly being fished down to a point where they no longer can support profitable fishing. The heavy exploitation of the species. which is slowgrowing and has a low replacement rate, is resulting in rapid depletion. Knowledge is is required, Mr. Chairman, on the life span of the surf clam, the age when they first enter the commercial fishery, the ages that are important to the fishery, the annual rate of recruitment, and the growth rate before and during their period of economic importance.

Senator Case has submitted to surf clam research proposal which outlines in detail the various areas of research which are needed in order to maintain this vital fishing industry.

While most of the fishing is done off the New Jersey coast, the impact on the demise of this industry in my State of Delaware would be substantial since one of the large packing plants for surf clams is located in Lewes, Del., and employs approximately 200 persons.

I understand, Mr. Chairman, that the Bureau of Commercial Fisheries is in agreement that research in this area is needed and that there is a definite threat of depletion of the clambeds. For these reasons, I desire to go on record as supporting an additional $230,000 for the Bureau of Commercial Fisheries for sea clams research in fiscal year 1965.

Again, Mr. Chairman, may I express to the committee my appreciation for the opportunity to appear this morning and I would hope that the committee would give consideration to the inclusion of this item in the appropriations for the Bureau of Commercial Fisheries.

NEW INDUSTRY DEVELOPMENT

Senator BOGGS. Mr. Chairman and members of the committee, I do appreciate your kindness in permitting me to appear here this morning in behalf of the proposal to undertake surf clam research in the Bureau of Commercial Fisheries.

I know that the distinguished Senator from New Jersey has already provided for the record a letter and information concerning this research proposal for surf clams. I would just like to basically support that.

Chairman HAYDEN. This is something that has not been done before?

Senator BOGGS. That is right, Senator. It is a relatively new industry discovered and developed within the last 20 years.

Chairman HAYDEN. And there is no doubt but that there is a large area in which this work, can be carried on?

Senator BOGGS. I think, so. I think it would run really from Newfoundland to the Gulf of Mexico on the east coast. It has grown to be about a $10 million industry. In the small State of Delaware there is one packing plant there that employs approximately 200 people alone, not including the boats and the people that work on the boats.

So I want to commend the Bureau of Fisheries in being interested in it and starting in a small way. And I just wanted to add my support to the Bureau of Fisheries, to the industry which is cooperative, and to the Senators from the other States who recognize the importance of this and who are calling it to the attention of your committee, and I appreciate whatever consideration the committee has been able to give to it.

Chairman HAYDEN. Thank you.

Senator BARTLETT. Is this a budget item?

BUDGET REQUEST

Senator BOGGS. It was not in the budget request. This is a proposal that has been recommended by the industry, and it is under consideration by the Bureau of Fisheries. I understand previous testimony by Mr. McKernan indicated that if this request were granted the Bureau could wisely and usefully use it.

Senator BARTLETT. $230,000?

Senator BOGGS. Yes, sir.

Senator BIBLE. And is that supported? Do we have information that explains what the $230,000 will do?

Senator BOGGS. Yes. It has been submitted by Senator Case, of New Jersey, and Mr. McKernan, of the Bureau. And I suppose they would provide additional information upon request.

JUSTIFICATION

Senator BIBLE. Justification for the $230,000?

Senator BOGGS. That is right.

Senator BIBLE. My understanding is that it has not been physically put into date, but undoubtedly they will make a later submission. My only point is that the committee should have before it as to why any $230,000 or $150,000 or some other amount—Mr. Eaton, of the staff, says that he understands that we will have it, but I would suggest that you follow that through.

Senator BOGGS. That is my understanding, and I will follow it through.

Senator BIBLE. As of now we don't have it.

Senator BOGGS. Thank you very much.

ITEMS RELATING TO THE BUDGET REQUEST

## STATEMENT OF HON. ERNEST GRUENING, U.S. SENATOR FROM THE STATE OF ALASKA

SUMMARY OF STATEMENT

Chairman HAYDEN. Senator Gruening.

Senator GRUENING. Mr. Chairman and members of the committee, I would say that with all this talk about improving Senate procedures there is one point that we can never improve, and that is the law of physics that provides that a person cannot be in more than one spot at the same time. I am supposed to be chairing the Subcommittee on Public Lands of the Interior Committee to hear the very important bill to create the Indiana dunes. The room is packed up there, and people are standing outside.

Likewise, at 10:30 I am supposed to attend a meeting of the Mexican Interparliamentary Union. Our Mexican friends are senstitive and their feelings might be hurt if we were not there. It is really quite a problem to have so many simultaneous official commitments.

I have a long statement which, if agreeable to the committee, I will submit for the record, and merely touch on the highlights.

Chairman HAYDEN. That will be agreeable.

(The statement referred to follows:)

STATEMENT OF SENATOR ERNEST GRUENING

Mr. Chairman, the Department of the Interior's budget for fiscal year 1965 includes a request of $35,712,664 to be spent in the State of Alaska. The U.S. Forest Service budget request for Alaska for the same period is $5,842,300.

These are sums which, if approved, will add substantially to the development of the 49th State. I am pleased to have this opportunity to appear before the Senate Appropriations Subcommittee on Interior Department and Related Agencies to comment specifically on certain items in the budget.

However, first I want to commend the subcommittee for its laudable work last year in resolving the dilemma as to how should cadastral surveys be made in Alaska by the Bureau of Land Management. As my good friend and colleague, Senator Bob Bartlett has told you, the surveying now appears to be proceeding with welcome vigor. New techniques utilizing helicopters and cameras have speeded the work. The State government has not advised the Alaska congressional delegation of any problems with this improved type of program, and I can assure the subcommittee that we are in constant touch with State officials.

Historians of the future will, I predict, comment on this positive action taken by the Senate Appropriations Committee on Interior Department and Related Agencies to help Alaska select the 103.5 million acres of Federal land allotted it under the statehood act. With but 25 years in which to make the selection of land totaling approximately the State of California, the urgency for speed was obvious.

The cadastral surveys necessary were behind schedule and the Bureau of Land Management had announced in early 1963 its intention to cut back further the cadastral surveys in the State. The situation presented was intolerable. Action was needed and the situation was brought to the attention of the subcommittee by my colleague Senator Bob Bartlett and myself.

By direction in its report on the fiscal year 1964 budget, this subcommittee and later the full Senate Appropriations Committee, and in due course the com mittee of conference, cut a 20th century Gordian knot of insurmountable entanglement.

The committee report No. 181 expressed committee concern with the complaints "relative to surveys of Alaskan land selections."

Section 6(g) of the statehood act specified:

"Where any lands desired by the State are unsurveyed at the time of their selection, the Secretary of the Interior shall survey the exterior boundaries of the area requested without any interior subdivision thereof, and shall issue a patent for such selected area in terms of the exterior boundary."

When I testified last year the Bureau of Land Management and the State of Alaska appeared to be locked in endless combat as to what constituted a proper survey.

To its everlasting credit, this subcommittee listened, researched the problem, and acted. We of Alaska thank you.

The committee report to which I have referred said:

"A reading of the statute and the committee reports on the legislation which was enacted into law leads to the clear and definite conclusion that Congress intended that so long as the State selections meet the specifically stated requirements of the act there should be an exterior boundary survey of each land selection made by the State of Alaska.

"Therefore, the committee directs that the Secretary of the Interior cause surveys of Alaskan land selections made under the terms of Public Law 85–508 (the Alaska Statehood Act) to be executed in compliance with this report. It is also the desire of the committee that the Department proceed as promptly as possible with the surveys in order that the time limitations of the act admitting Alaska to the Union will be met."

To speed work on the Alaska cadastral surveys the committee added $300,000 over the budget estimate for cadastral surveys in Alaska. That amount was retained by the conferees who also agreed, "* * * that the directive included in the report of the Senate committee with regard to surveys of Alaska land selections made under the terms of the Alaska Statehood Act (Public Law 85–508) will be satisfied by surveys of the exterior boundaries of full townships (even if composed of as many as four land selections) with monumentation at an average of 2 miles around the perimeter."

The fiscal year 1965 budget request of the Bureau of Land Management includes $1,960,000 for cadastral surveys in Alaska which I support. I am advised that the BLM, through the use of advanced methods such as tellurometer and

Hoversight, can survey almost twice the area as possible with electronic equipment and five to six times the area surveyed by teams working on the ground.

I do suggest that the subcommittee—if it has not already done so—from time to time ask for specific progress reports on the extent of acreage surveyed and accepted by the State. It would be unfortunate if the wise direction of the subcommittees were thwarted, either unwittingly or otherwise.

Since my comments thus far have dealt specifically with the Bureau of Land Management, it seems easier to complete my testimony of this particular agency budget at this time.

Forest fires have for too many years burned unchecked through Alaskan forests. Therefore, it is with pleasure that I find that the BLM forest protection program in the State has cut that acreage lost by 80 percent or from 1 million acres to an estimate 200,000 acres since its inception in 1957. The BLM has requested $400,000 to initiate construction of new State fire control facilities. Existing facilities at Elmendorf Air Force Base are unsuitable. I am told that the Air Force would like to have BLM move, that the Bureau wants to move, that the present location is bad, and that maintenance costs are high.

New quarters seem desirable and sought by all concerned.

Total cost of the facilities is estimated at $1.1 million over a 3-year period. If, as has been asked by Senator Bartlett, this construction can be done in less time with the resultant saving of the taxpayer's money, I hope the subcommittee will approve an increase in the Bureau's requested amount of $400,000.

NATIONAL PARK SERVICE

Ralph Waldo Emerson has written, "In the woods we return to reason and faith," and John Muir in 1898 wrote:

"Thousands of nerve-shaken, overcivilized people are beginning to find out that going to the mountains is going home; that wildness is a necessity; and that mountain parks and reservations are useful not only as fountains of timber and irrigating rivers, but as fountains of life."

Muir's words ring true today—66 years later. The only change I would suggest is the substitution of the word "millions" for the word "thousands," for according to the National Park Service an estimated 102 million persons will visit our national parks and monuments in 1965. In 1956 the figure was 54 million and in 1946 the visitor figure was approximately 22 million. The 1936 figure was nearly 12 million.

Yes, National Park Service, use—and concomitantly the expense of operating and improving our parks—is increasing. I support the budget request as it has been sent to this subcommittee with Bureau of Budget approval by the National Park Service.

The President's National Park Service budget for Alaska includes $1,116,800 for Glacier Bay National Monument. This amount would include the cost of a lodge building, $447,800; two three-bedroom residences, $94,000; an equipment storage building, $54,000; a materials storage building, $18,000; boat fueling facilities, $12,000; a 50-passenger cruise boat, $176,500; grounds improvement, $18,000; a communications system, $11,000; a water system, $240,000; and a sewer system, $10,000.

On earlier occasions I have described to the subcommittee the remarkable baeuty of this nearly 2.3 million acre monument with its boundaries less than 50 air miles from Juneau. John Muir and the Reverend S. Hall are credited with discovering Glacier Bay in 1879. Freeman Tilden in his book "The National Parks: What They Mean to You and Me" has written, "* * * here on the coast of southeastern Alaska, is the unrivaled place to see the life of the glacial ice on our continent. The glaciers of Mount Rainier and Glacier National Parks are impressive, but it is in Alaska that they may be studied and enjoyed on the grandest scale. For these glaciers come down to the sea, and when the great cliffs, some as tall as a building of 25 stories are broken off and sent crashing into the ocean, they put out a circle of immense waves and fill the tidal inlets with thousands of drifting bergs. Here, in the 20 tremendous glaciers and others of lesser but still great size, may be viewed all stages of activity—the fast moving ice, the slowly moving ice, the slowly dying glacier."

Geologists report that around 1700 an icecap at least 3,000 feet thick covered Glacier Bay. To a large extent the glacial ice has remained because of temperature and snowfalls. Today, John Muir's cabin is some 15 or miles from the present face of the glacier which bears his name. The forest has moved in where it can and it seems improbable that more dense thickets of alder abound anywhere.

The pristine beauties of Glacier Bay National Monument have been sheltered for far too long.

Here are monumental, snow-covered mountains which climb directly from the sea to heights of 10,000 to over 15,000 feet;

Here are emerald-green, Alpine-like pools viewed only by mountain sheep, bald or golden eagle, or the lucky visitor who is airborne;

Here are vast expanses of glacial ice which stretch as far as the eye sees even into Canada, and which in width are many miles;

Here are beauties of such size and grandeur that one wishes he could reach out and suddenly bring them before the eyes of all men.

The National Park Service proposes to do this.

The committee will recall that when I appeared before it last year, I said that the southeastern Alaska ferry system would make access to the monument easier. Information I have received from the State of Alaska's division of planning and research of the department of economic development and planning shows the remarkable use of the new Marine Highway in its first year. The use figures the first year are those anticipated in the fourth year. For example, 16,098 passengers disembarked at Juneau during the months of April through September, and in the same period 15,585 passengers embarked.

More important, perhaps, is the passenger figure of 15,699 embarking at Prince Rupert, British Columbia, where the Marine Highway starts, during the same period, and the 10,576 passengers disembarking at Haines, the city from which runs the Haines Cutoff connecting southeastern Alaska with the Alaska Highway and subsequently the interior of the State.

The subcommittee may ask if these travelers are interested in seeing Glacier Bay National Monument. Let me quote from some of the letters and wires I have received this year.

According to the Juneau Chamber of Commerce manager, Mr. Robert A. Wells, the chamber, local travel agents, and visitor information desks have received hundreds of inquiries each summer from people wishing to visit Glacier Bay. Manager Wells says the present lack of lodging plus eating facilities keeps them away because few have camping gear.

The chamber feels that lodge facilities would substantially lower present expensive boat and air charter services to the monument. Says Wells: "Without lodging there will be many more disappointed Alaska visitors each year."

The president of Alaska Coastal-Ellis Airlines, Mr. S. B. Simmons, wired me that his company has received "increasingly numerous inquiries regarding sightseeing charter flights this area (which) indicates growing interest. Believe accommodations plus cruise boat in bay would receive high summer utilization. Unique combination scenic tidewater hotel site in close proximity to seaplane ramp and jet-capable airport provides ideal transportation facilities."

Mr. Simmons says his airlines "could easily provide increased scheduling into Bartlett Cove to handle additional traffic."

The general manager of the Alaska State Chamber of Commerce, Mr. Don Dickey, confirms that the State chamber supports appropriations to provide tourist lodging at Glacier Bay. He says:

"Last year Alaskan businessmen have invested $6 million and added 375 new or improved accommodations in anticipation of growing tourist travel. Urge this Government action to keep abreast of Alaska expanding tourist industry."

The actual count of visitors in Glacier Bay in 1962 was 1,066. The number in 1963 was 845, but this count is not accurate.

The superintendent of the monument lost one of his two park rangers in midsummer, and inadequate travel funds kept the remaining ranger in the Bartlett Cove area nearly all the time.

On February 15, 1964, Superintendent L. J. Mitchell wrote:

"Even under normal circumstances, we can hope to contact only a small percentage of visitors. We have the services of two rangers to cover this area which is roughly one-third the size of the State of Maryland and nearly twice the size of Delaware. All travel is by boat, air, or cross country afoot except for the short access road leading from Gustabus Airport to Bartlett Cove * * *.

"Judging from the number of visitors arriving at Bartlett Cove, there has been a real 35-percent increase in travel to the park, not a decrease as is indicated by official statistics."

In response to my question, Superintendent Mitchell stated:

"Volume of mail inquiries, as well as individual contacts at the Juneau office indicates that there are many interested in visiting Glacier Bay. Because of the lack of public use facilities and transportation within the park, our response to inquiries would discourage all but the most persistent.

"We have no record of the number of informational folders mailed each year in response to inquiries for general information. However, the number mailed would amount to several thousand. We did prepare individual mail replies to 113 inquiries for special information not included in regular informational material."

The Juneau, Alaska, Daily Alaska Empire of May 26, 1963, contained an informative article entitled "Sleeping Giant of Alaska Visitor Potential Awaits Development." The story carried a quote by our distinguished colleague, Senator Harry F. Byrd, of Virginia, who is reported to have said after visiting Glacier Bay:

"I have visited every place in the world where they claimed to have scenery. This is the most sparkling and beautiful piece of scenery I have ever seen."

Earlier in the year on April 7, 1963, the Empire quoted editorially on the need to expand facilities at Glacier Bay National Monument. A pertinent part follows:

"Of course, the visitor count at Glacier Bay is low. There's no access except in extraordinary circumstances, no way to see the sights, no place to stay, no place to eat. The whole idea is to make it possible for people to visit what one eminent Senator has called the world's grandest scenery and the former associate director of the National Park Service has called the outstanding unit of the entire U.S. national park system. If Americans find they can visit Glacier Bay, they'll visit it, even if they have to travel thousands of miles."

Mr. Chairman, I will not read further from the editorial nor from the correspondence to which I have referred. I do request that the full text of the correspondence and newspaper material be made a part of the hearing record at this point in my remarks to permit the subcommittee and others who are interested to read them.

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EXHIBITS RELATING TO FACILITIES PROPOSED FOR GLACIER BAY NATIONAL MONUMENT

EXHIBIT A

LETTER FROM DONN HOPKINS, DIRECTOR, DIVISION OF PLANNING AND RESEARCH

JUNEAU, ALASKA, *February 14, 1964.*

Hon. ERNEST GRUENING,
*New Senate Office Building, Washington, D.C.*

DEAR SENATOR GRUENING: Mr Morris Ford asked me to give you information on the number of travelers who used the southeast Alaska ferries during 1963, and any other information which might be of value in estimating the use that will be made of the lodge and other facilities proposed for Glacier Bay National Monument.

A summary of passengers and vehicles embarking and disembarking at Prince Rupert and southeast Alaska ports is enclosed.

Preliminary results of a traveler survey being conducted by this division, which appear to be relevant, are also given. This survey is designed for travelers leaving Alaska, and estimates given are for those persons who left the State during the 4-month period. May through August 1963.

MAY THROUGH AUGUST 1963

A total of 146,151 persons departed Alaska; 102,000 of these, or 70 percent, were tourists, either vacationers or persons who visited friends or relatives, or both.

Twenty-one percent of the tourists had been to Alaska before.

Sixty-eight percent said they planned to return to Alaska.

Eighty-five percent of the State ferry passengers disembarking at Prince Rupert were tourists.

During the same months, 13,737 cruise ship passengers visited southeastern Alaska. Information is not available on air travelers to southeastern.

When asked what additional information they would have liked, 24 percent of the tourists wanted more information on "remote places." This would seem to indicate a substantial interest by the public in visiting places like Glacier Bay.

Very truly yours,

DONN HOPKINS, *Director.*

ALASKA DEPARTMENT OF PUBLIC WORKS, DIVISION OF MARINE TRANSPORTATION, JUNEAU, ALASKA

*Ferry passengers and vehicles embarking at ports, January–December 1963*

| | Skagway | | Haines | | Juneau | | Sitka | | Petersburg | | Wrangell | | Ketchikan | | Prince Rupert | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Passengers | Vehicles | Passengers | Vehicles | Passengers | Vehicles | Passengers | Vehicles | Passengers | Vehicles | Passengers | Vehicles | Passengers | Vehicles | Passengers | Vehicles |
| January | 337 | 2 | 236 | 8 | 268 | 4 | 8 | 1 | 39 | 2 | 38 | 2 | 180 | 10 | ..... | ..... |
| February | 341 | 19 | 158 | 18 | 558 | 45 | 79 | 12 | 237 | 18 | 182 | 12 | 213 | 34 | 325 | 78 |
| March | 330 | 23 | 303 | 17 | 564 | 53 | 111 | 21 | 159 | 16 | 134 | 14 | 342 | 48 | 355 | 147 |
| Subtotal | 1,008 | 44 | 697 | 43 | 1,390 | 102 | 198 | 34 | 435 | 36 | 354 | 28 | 735 | 92 | 680 | 225 |
| April | 376 | 27 | 231 | 33 | 755 | 66 | 49 | 15 | 151 | 16 | 165 | 14 | 503 | 57 | 468 | 164 |
| May | 371 | 48 | 686 | 168 | 1,062 | 197 | 141 | 26 | 188 | 29 | 157 | 19 | 762 | 116 | 823 | 236 |
| June | 823 | 86 | 1,884 | 493 | 2,275 | 431 | 492 | 51 | 480 | 75 | 393 | 45 | 1,387 | 235 | 3,045 | 754 |
| July | 1,943 | 173 | 4,652 | 1,251 | 5,261 | 972 | 598 | 43 | 909 | 155 | 897 | 157 | 2,919 | 444 | 5,261 | 991 |
| August | 2,096 | 234 | 4,159 | 1,189 | 4,677 | 934 | 666 | 73 | 508 | 80 | 832 | 122 | 2,929 | 476 | 4,370 | 758 |
| September | 926 | 131 | 1,499 | 554 | 1,555 | 422 | 397 | 67 | 5 | 1 | 410 | 85 | 1,218 | 261 | 1,732 | 400 |
| Subtotal | 6,535 | 699 | 13,111 | 3,688 | 15,585 | 3,022 | 2,343 | 275 | 2,241 | 356 | 2,854 | 442 | 9,718 | 1,589 | 15,699 | 3,303 |
| October | 419 | 91 | 711 | 235 | 893 | 195 | 242 | 30 | ..... | ..... | 234 | 34 | 738 | 165 | 701 | 189 |
| November | 237 | 77 | 448 | 140 | 800 | 142 | 135 | 27 | 325 | 56 | 300 | 36 | 563 | 99 | 436 | 145 |
| December | 288 | 65 | 379 | 103 | 693 | 136 | 208 | 36 | 489 | 35 | 245 | 34 | 554 | 121 | 354 | 120 |
| Subtotal | 944 | 233 | 1,538 | 478 | 2,386 | 473 | 585 | 93 | 814 | 91 | 779 | 104 | 1,855 | 385 | 1,491 | 454 |
| Grand total | 8,487 | 976 | 15,346 | 4,209 | 19,361 | 3,597 | 3,126 | 402 | 3,490 | 483 | 3,987 | 574 | 12,308 | 2,066 | 17,870 | 3,982 |

*Summary—Passengers embarking*

| | |
|---|---|
| January through March 1963 | 5,497 |
| April through September 1963 | 68,086 |
| October through December 1963 | 10,392 |
| Total passengers, 1963 | 83,975 |

*Summary—Vehicles embarking*

| | |
|---|---|
| January through March 1963 | 604 |
| April through September 1963 | 13,374 |
| October through December 1963 | 2,311 |
| Total vehicles, 1963 | 16,289 |

Prepared by the Division of Marine Transportation, Jan. 20, 1964.

*Ferry passengers and vehicles disembarking at ports, January–December 1963*

| | Skagway | | Haines | | Juneau | | Sitka | | Petersburg | | Wrangell | | Ketchikan | | Prince Rupert | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Passengers | Vehicles | Passengers | Vehicles | Passengers | Vehicles | Passengers | Vehicles | Passengers | Vehicles | Passengers | Vehicles | Passengers | Vehicles | Passengers | Vehicles |
| January | 385 | 7 | 275 | 1 | 201 | 5 | 66 | ..... | 38 | 1 | 12 | 2 | 21 | 1 | 148 | 12 |
| February | 328 | 18 | 123 | 13 | 590 | 53 | 78 | 17 | 170 | 18 | 146 | 21 | 493 | 62 | 168 | 32 |
| March | 336 | 30 | 303 | 21 | 614 | 71 | 99 | 32 | 273 | 40 | 206 | 18 | 330 | 90 | 148 | 39 |
| Subtotal | 1,049 | 55 | 701 | 35 | 1,405 | 129 | 243 | 49 | 481 | 59 | 364 | 41 | 844 | 153 | 464 | 83 |
| April | 375 | 35 | 224 | 36 | 689 | 77 | 143 | 20 | 253 | 39 | 173 | 17 | 580 | 105 | 273 | 60 |
| May | 423 | 52 | 738 | 175 | 988 | 180 | 143 | 41 | 220 | 43 | 172 | 25 | 601 | 135 | 920 | 183 |
| June | 1,013 | 107 | 2,135 | 523 | 2,462 | 469 | 451 | 73 | 516 | 93 | 407 | 63 | 1,829 | 365 | 2,028 | 468 |
| July | 2,483 | 198 | 3,426 | 865 | 5,625 | 1,073 | 608 | 68 | 1,060 | 183 | 866 | 156 | 2,995 | 490 | 5,286 | 1,179 |
| August | 2,081 | 233 | 3,012 | 723 | 4,529 | 933 | 760 | 115 | 454 | 73 | 829 | 152 | 2,962 | 494 | 5,537 | 1,160 |
| September | 732 | 127 | 1,041 | 356 | 1,805 | 446 | 368 | 93 | 8 | 3 | 387 | 77 | 1,374 | 274 | 2,048 | 519 |
| Subtotal | 7,107 | 752 | 10,576 | 2,678 | 16,098 | 3,178 | 2,473 | 410 | 2,511 | 434 | 2,834 | 490 | 10,341 | 1,863 | 16,092 | 3,569 |
| October | 412 | 94 | 551 | 168 | 916 | 219 | 286 | 46 | ..... | 1 | 245 | 45 | 683 | 151 | 843 | 217 |
| November | 213 | 73 | 350 | 90 | 848 | 165 | 164 | 28 | 252 | 36 | 261 | 35 | 580 | 106 | 568 | 188 |
| December | 253 | 55 | 357 | 115 | 789 | 128 | 203 | 19 | 334 | 35 | 267 | 42 | 496 | 102 | 521 | 153 |
| Subtotal | 878 | 222 | 1,258 | 373 | 2,553 | 512 | 653 | 93 | 586 | 72 | 773 | 122 | 1,759 | 359 | 1,932 | 558 |
| Grand total | 9,034 | 1,029 | 12,535 | 3,086 | 20,056 | 3,819 | 3,369 | 552 | 3,578 | 565 | 3,971 | 653 | 12,944 | 2,375 | 18,488 | 4,210 |

*Summary—Passengers disembarking*

| | |
|---|---|
| January through March 1963 | 5,552 |
| April through September 1963 | 68,031 |
| October through December 1963 | 10,392 |
| Total passengers, 1963 | 83,975 |

*Summary—Vehicles disembarking*

| | |
|---|---|
| January through March 1963 | 604 |
| April through September 1963 | 13,374 |
| October through December 1963 | 2,311 |
| Total vehicles, 1963 | 16,289 |

Prepared by the Division of Marine Transportation, Jan. 20, 1964.

EXHIBIT B

TELEGRAM FROM ROBERT A. WELLS, MANAGER, JUNEAU CHAMBER OF COMMERCE

JUNEAU, ALASKA, *February 16, 1964.*

Hon. ERNEST GRUENING,
*U.S. Senate,*
*Rm. 4106, New Senate Office Building,*
*Washington, D.C.:*

Juneau Chamber wishes to stress need for visitor lodge in Glacier Bay National Monument. Local travel agent, local charters services, and our own visitor information desks all receive hundreds of inquiries each summer from people wishing to visit Glacier Bay. Lack of any overnight facilities cause most of them to be disappointed since few are equipped with camping gear. Without overnight facilities boat charter operators are limited to number of persons they can sleep aboard thus increasing cost of transportation to Monument. Lack of eating facilities forces air charter operator to offer short trips only. Lodge facilities would enable both boat and air charter services to offer much lower cost travel to Monument and provide the visitor with base from which he can enjoy Glacier Bay. Without lodge there will be many more disappointed Alaska visitors each year.

ROBERT A. WELLS,
*Manager, Juneau Chamber of Commerce.*

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EXHIBIT C

TELEGRAM FROM S. B. SIMMONS, President, ALASKA COASTAL-ELLIS AIRLINES

JUNEAU, ALASKA, *February 15, 1964.*

Senator ERNEST GRUENING,
*U.S. Senate,*
*4106 New Senate Office Building, Washington, D.C.:*

Strongly urge Government construction tourist facilities Bartlett Cove, Glacier Bay, Alaska. Increasingly numerous inquiries regarding sightseeing charter flights this area indicates growing tourist interest. Believe accommodations plus cruise boat in bay would receive high summer utilization. Unique combination scenic tidewater hotel site in close proximity to seaplane ramp and jet-capable airport provide ideal transportation facilities. Alaska Coastal-Ellis Airlines currently serving Gustavus/Icy Straits area year round with twice-daily scheduled flights from Juneau, and could easily provide increased scheduling into Bartlett Cove to handle additional traffic.

S. B. SIMMONS,
*President, Alaska Coastal-Ellis Airlines.*

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EXHIBIT D

TELEGRAM FROM DON DICKEY, GENERAL MANAGER, ALASKA STATE CHAMBER OF COMMERCE

JUNEAU, ALASKA, *February 18, 1964.*

Senator ERNEST GRUENING,
*4106 New Senate Office Building, Washington, D.C.:*

Alaska State Chamber of Commerce supports the appropriation to provide tourist lodging at Glacier Bay. We urge your efforts to retain $1,160,000 proposed for this purpose. Last year Alaskan businessmen have invested $6 million and added 375 new or improved accommodations in anticipation of growing tourist travel. Urge this Government action to keep abreast of Alaskan expanding tourist industry.

DON DICKEY,
*General Manager, Alaska State Chamber of Commerce.*

EXHIBIT E

LETTER FROM L. J. MITCHELL, SUPERINTENDENT, GLACIER BAY NATIONAL MONUMENT

DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
SITKA & GLACIER BAY NATIONAL MONUMENTS,
*Juneau, Alaska, February 15, 1964.*

Hon. ERNEST GRUENING,
*U.S. Senate, Washington, D.C.*

DEAR SENATOR GRUENING: This will acknowledge the telephone request from Miss Olsen of your office and provide information which she requested.

My letter of May 10, 1963, gave you information requested relative to method of visitor count in this area. I indicated to you at that time that I did not consider visitor count statistics in this area valid, nor indicative of actual conditions. I said that the count obtained, better reflected the opportunity which the park staff had to make count contacts, rather than actual visitation. An analysis of visitor count for the past 2 calendar years is an excellent demonstration to support my contention that the statistics show more contact opportunity, rather than visitation to the park:

| | 1962 calendar year | 1963 calendar year |
|---|---|---|
| Total visits (by actual count) | 1,066 | 845 |
| Total visitor-days (by actual count) | 1,577 | 2,132 |
| Estimated number observed in park waters inside Glacier Bay aboard boats who could not be added into count under criteria | 1,828 | 935 |
| Estimated number observed in park waters in coastal section of park who could not be counted under criteria | 1,513 | 1,091 |

Comparison of the 2 years reflects that:

1. Loss of one of our two rangers in midsummer, and subsequent difficulty of filling the position at this area, cut our opportunity for contact of visitors by a great deal.

2. Severe restriction on amount of funds used for travel was imposed by Congress beginning in July. This practically eliminated mobility of the one remaining ranger, so that nearly all count was made at or near Bartlett Cove, the headquarters for the park.

Even under normal circumstances, we can hope to contact only a small percentage of visitors. We have the services of two rangers to cover this area which is roughly one-third the size of the State of Maryland and nearly twice the size of Delaware. All travel is by boat, air, or cross country afoot except for the short access road leading from Gustavus Airport to Bartlett Cove.

In review of the above count tabulation, the 1963 total visits number represented almost wholly those who stopped at Bartlett Cove, where the 1962 number included those contacted in outlying areas of the park. The reduced numbers observed in the bay and along the coastal portion of the park in 1963 is directly attributable to the infrequent movement of rangers on patrols, and to lack of rangers to carry out patrols. We are still convinced that the number of visitors contacted (and thus counted) is somewhat proportionate to the number of personnel we have in this area, and to the rate of mobility of these employees.

Judging from the number of visitors arriving at Bartlett Cove, there has been a real 35-percent increase in travel to the park, not a decrease as is indicated by official statistics.

Volume of mail inquiries, as well as individual contacts at the Juneau office indicates that there are many interested in visiting Glacier Bay. Because of the lack of public use facilities and transportation within the park, our response to inquiries would discourage all but the most persistent.

We have no record of the number of informational folders mailed each year in response to inquiries for general information. However, the number mailed would amount to several thousand. We did prepare individual mail replies to 113 inquiries for special information not included in regular informational material.

We are enclosing a copy of our May 10 letter, in case you may not have retained that in your files.

We sincerely hope that the information included above will be of assistance to you.

Sincerely yours,

L. J. MITCHELL, *Superintendent.*

SITKA AND GLACIER BAY NATIONAL MONUMENTS,
*Juneau, Alaska, May 10, 1963.*

Hon. ERNEST GRUENING,
*U.S. Senate,*
*Washington, D.C.*

DEAR SENATOR GRUENING: I am very sorry that I was unable to more fully answer your questions regarding visitor count methods in Glacier Bay National Monument during our recent discussion aboard the MV *Malaspina.*

Since returning to the office I have had an opportunity to refresh my memory by review of the files and perhaps can give you a more complete picture in this regard.

There has always been difficulty in counting visitors to Glacier Bay National Monument. Its 3,600 square miles of area is covered by two rangers, who obviously can observe only a small percentage of visitors entering the monument. The fact that visitors can enter by boat or float airplane anywhere along about 1,000 miles of coastline is contrasted to most parks and monuments where access is restricted to highway entrances, usually where checking stations are located. There are, of course, no highways making Glacier Bay accessible by car. Under these circumstances the two rangers, judging by the number of boats and aircraft observed in the area, made estimates (always carefully conservative) of the number of visitors to the monument. This method was used until 1959 when a new count method was begun. The last year's count using this method was 5,130 visitors.

In 1959 the National Park Service instituted a count method more or less standardized throughout the Service areas. This was devised to provide comparability among parks for purposes of reflecting for each park the size, character, and pattern of workload imposed, and the impact on the park by visitors. Thus, estimates were no longer acceptable. The first year's count under this new system for Glacier Bay was 1,340 visitors.

Present criteria for counting visitors is essentially as follows:

1. Visitors, to be counted, must be ashore or using park facilities when observed by park staff (two rangers). Thus, regardless of the number of boats or aircraft observed on waters within the monument, no count can be made unless the persons aboard are observed ashore.

2. Visitors may be counted only if they directly exert a perceptible workload upon the park staff, or upon facilities.

While we are currently making an attempt to improve the method for this particular area, there are a number of faults that render the above criteria of limited use.

(*a*) The number of visitors counted is roughly proportionate to the number of staff we are able to keep in the field and upon the mobility of that staff. An ability to keep our rangers mobile increases visitor count. Restriction of travel within the area, which frequently occurs, decreases visitors count. We are satisfied that increase of staff from the present two to three rangers would show an increase of about 50 percent in visitor count.

(*b*) Lack of a developed visitor use site within Glacier Bay National Monument provides no incentive for visitors who might be counted to come ashore. For example, during June, July, and August of the first year using the new count method, there were over 4,000 that entered the monument by steamship alone. Yet, during the same 3 months we reported a total of only 514 visitors entering the monument under the new criteria.

(*c*) The two rangers are kept busy with duties connected with resource management and protection, research, and administrative work, and since these duties require very long workweeks (contributed time for all over 40 hours per week), they have a tendency to overlook the importance of counting visitors, with the result that many are missed.

You asked me specifically about the effect on accessibility of the monument created by the lack of visitor facilities.

It is my personal opinion that visitor accommodations are the key factor in making this area accessible. The entrance to Glacier Bay at Bartlett Cove is 90 miles from Juneau, which is the nearest city where boats, fuel, and supplies are available, and the main arm of Glacier Bay is 60 miles in length. Ordinarily

a visitor wishing to see Glacier Bay has to charter a boat from Juneau and travel a minimum of 300 miles on a round trip, involving at least 3 days' travel to see even a portion of the monument. With no boat fuel available at Glacier Bay, a charter boat must be of the size that can carry its own fuel for a trip of 350 to 400 miles. It becomes obvious at once that only yacht owners, and the better-well-to-do visitors can enjoy seeing Glacier Bay.

It has long been apparent that to permit family vacations to Glacier Bay certain facilities would need to be provided. These would be a lodge, where beds, meals, and supplies would be available; a boat which would operate from the lodge at Bartlett Cove into the bay on day cruises; facilities for the sale of boat fuel; and a taxi or bus service between the Gustavus Airfield (10 miles distance) and the lodge.

These facilities would permit visitors to arrive via scheduled air service, stay at the lodge, engage in fishing and hiking locally, and take cruises into the bay. With this in mind we issued a prospectus inviting private business to provide the facilities, but not a single proposal was received because of the record of such small visitation.

Prospective visitors to Glacier Bay have for many years faced a classic chicken-and-egg impasse, where facilities could not be built because of the relatively few visitors of record, and where visitation could not increase because of no facilities to accommodate them.

Finally we were successful in being able to budget construction of some rather modest facilities, including a small lodge, a 50-passenger tour boat, and boat fuel facilities, for fiscal year 1964. According to local news media, however, these facilities have been eliminated from the budget by the House Appropriations Committee, for the reason that travel records to this area show only some 1,100 visitors per year.

We have never been able to answer inquiries with encouragement to visit Glacier Bay. We must, in fairness, point out to prospective visitors in effect, that unless they have independent means they should not undertake travel to this area. That to travel beyond Juneau they would have to be independent of any facilities whatever.

Glacier Bay National Monument has been said by many to be the most scenically spectacular of any of the national parks and monuments. Even so, as long as no facilities are provided there only a select few citizens can avail themselves of enjoying it. It will continue to be unavailable to the large number of citizens who inquire, but are discouraged by the difficulty of access.

If facilities were provided, both ship and air transportation companies have expressed interest in making regular stopover service available. Utilization of this outstanding area of the national park system would contribute much to American culture, and incidentally would contribute substantially to Alaskan economy.

I believe I have discussed the questions you gave me, and I hope adequately.

Representative Rivers expressed interest on these same questions, and I am taking the liberty of sending a copy to him.

Sincerely yours,

L. J. MITCHELL, *Superintendent.*

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EXHIBIT F

[Article from May 26, 1963, Daily Alaska Empire]

SLEEPING GIANT OF ALASKA VISITOR POTENTIAL AWAITS DEVELOPMENT

Glacier Bay National Monument about 60 miles west of Juneau as the eagle flies—proposed for national park status by the Juneau Chamber of Commerce and others—is one of the most fantastically scenic and scientifically interesting parts of the world. Its potential importance to all of Alaska is tremendous, yet at present it isn't accessible to the traveler in a practical way.

The world standing of Glacier Bay, now little known even by Juneauites, is demonstrated by the following quotations:

Eivind T. Scoyen, upon retirement as Associate Director of the National Park Service: "During my somewhat more than 60 years of contact with national park system areas, I have always been reluctant to pass judgment on what I believe is our outstanding area. However, I am now firmly convinced that on the basis of mountains, snowfields, rivers, lakes, bays, glaciers, wildlife, and scientific interest, this can only be Glacier Bay."

Senator Harry F. Bryd, Democrat, of Virginia, respected universally for his judgment—after visiting Glacier Bay: "I have visited every place in the world where they claimed to have scenery. This is the most sparkling and beautiful pieces of scenery I have ever seen."

Famous Geographer Henry Gannett in 1899, after seeing Glacier Bay: "* * * the Alaska coast is to become the showplace of the earth, and pilgrims, not only from the United States, but from far beyond the seas, will throng in endless procession to see it. Its grandeur is more valuable than the gold or the fish or the timber, for it will never be exhausted. This value, measured by direct returns in money received from tourists, will be enormous; measured by health and pleasure it will be incalculable * * *."

### AWAITING DEVELOPMENT

These words are just as true today as when they were written, yet Glacier Bay still hasn't been made accessible to the typical visitor (without wealth to own a yacht or charter a boat with accommodations to take care of needs on the trip).

The National Park Service, seeing the need, first invited proposals from private enterprise for providing hotel, transportation, and other essentials to the public, then when none were forthcoming, planned installation by the Government of necessary visitor facilities, to be leased for private operation once established. The Department of the Interior, in the pending budget for the coming fiscal year, asked an amount a little above a million dollars for the needed lodge and sightseeing craft—so as to bring Glacier Bay within the range of visitors.

The Appropriations Committee of the House of Representatives struck out the fund—arguing that past visitor count failed to demonstrate importance of the development, not understanding that the past visitor count was meaningless in view of total lack of public transportation and accommodations. Alaska's Senators were working to put the fund back into the appropriations bill, but whether or not this has been or will be accomplished this year, is not known at this writing.

There seems no reason to doubt that once reasonable accessibility for Glacier Bay is established the visitor count will climb swiftly and far, bringing millions of dollars to Alaska and bringing unforgettable pleasure to many thousands of people. Both needed development to launch the process, and publicity to speed the coming of visitors, would be immeasurably enhanced if Congress would act to make Glacier Bay a full national park—the status all who know the area have agreed it deserves.

With accommodations and sightseeing in Glacier Bay, it is not unlikely in the future that tourist cruise ships will stop there and that the southeast Alaska "Marine Highway" will have a terminal at Gustavus, connected by road with Bartlett Cove, Glacier Bay headquarters. Regular and frequent water connection with Juneau would be a certainty, and ultimately there might even be highway access from the Haines area, though such a highway would be costly to build.

### TYPE OF COUNTRY

Glacier Bay National Monument contains nearly 3,600 square miles, including numerous glaciers from two of the continent's highest and most spectacular mountain ranges—Mounts Elias and Fairweather: breathtaking cliffs, fiords, bays, inlets, islands; more than 300,000 acres of splendid forest, typical of southeast Alaska; characteristic wildlife such as brown bear, black bear, glacier bear, mountain goat, wolverine, beaver, Sitka blacktail deer, some moose, innumerable birds of many kinds, salmon, halibut, seal, whales—being entirely capable of serving well as southeast Alaska's great forest and wildlife park (making unnecessary the persisent plan of some conservationists to put Admiralty Island in national park status).

At least a score of the glaciers are among the outstanding ones in the world, many of them so active as to rumble and crack like thunderstorms almost constantly, dropping great icebergs into the water, some periodically filling tens of miles of inlets with icebergs so thick a boat can't get through them.

Much land in the area has only in recent decades emerged from ice cover, adding variety to scenic and scientific interest. Some of this land is but rock and gravel, while on some plants are getting started, gradually developing into forests as new soil is created. Great cliff faces show the grooves of grinding ice. Stumps from forests of previous epochs are being studied by scientists as they emerge from cold storage.

Parties of glacier scientists have been studying the phenomena, making discoveries of varied significance, and at least one such party will be there again this year. Exploration and study of geology, wildlife and forests, and other characteristics have far to go. The area has almost unlimited potential for various kinds of outdoor recreation (hunting, of course, prohibited), being capable of accommodating large numbers of visitors without crowding, without detriment to natural conditions which are to be preserved for future generations capable of taking much pressure from the already overcrowded parks of the lower States, to their advantage, to the advantage of people everywhere who enjoy nature's beauty, and to the advantage of Alaska.

Only minimum reasonable development, with Government help, is needed to get the process started.

EXHIBIT G

[Editorial from Apr. 7, 1963, Daily Alaska Empire]

OPPORTUNITY SLIPPING

Alaska—particularly Juneau—was hurt when the House Appropriations Committee in Washington cut $1,111,800 from the Interior Department's budget for the coming fiscal year. The money was to construct a lodge, acquire a cruise boat, and create other facilities at Glacier Bay National Monument to make this area of amazing grandeur usable by the public.

We're inclinded to be sympathic with efforts to save public money, but the reason given for eliminating the funds for long-overdue development of this outstanding part of America's heritage near Juneau was: Since there were only 1,100 visitors to Glacier Bay last year "an expenditure of this magnitude does not appear warranted at this time." It shows lack of knowledge of the situation rather than an economy effort—and reminds us of an incident some years ago when construction of a highway shortcut was proposed to save 55 miles across the United States. The Federal Bureau of Public Roads said the project wasn't justified—"the traffic count is zero." The Bureau was right, of course—there wasn't any traffic count since the old dirt road had been washed out several years before and not repaired. But greater wisdom prevailed, and immediately the new highway section had a traffic count of 600 cars a day, climbing toward 1,000 and beyond.

Of course, the visitor count at Glacier Bay is low. There's no access except in extraordinary circumstances, no way to see the sights, no place to stay, no place to eat. The whole idea is to make it possible for people to visit what one eminent Senator has called the world's grandest scenery and the former Associate Director of the National Park Service has called the outstanding unit of the entire U.S. national park system. If Americans find they can visit Glacier Bay, they'll visit it, even if they have to travel thousands of miles.

The Park Service has planned the needed development and sold the Interior Department on it but apparently hasn't succeeded in making the message clear to Congress. The actual visitor count is probably so low as to fail to impress Congress, though it's nearer 5,000 than 1,100, showing the later figure only because of a statistical quirk ignoring visitors who, though getting a real experience of the grandeur from boats, can't be counted unless one of the two park men stationed in the vastness of the monument's 3,600 square miles happens to see them land. The rule isn't reasonable for Glacier Bay—even though the main cause of lack of visitors is lack of accessibility and accommodations. Nongovernment boats can't even refuel there.

Failure of busy lawmakers thousands of miles away to understand the situation isn't hard to fathom. They don't have the story, and it's hard to give it to them because most of them have no background upon which to visualize Glacier Bay and its surroundings. Harder to fathom is a shortage of drive by some people even here in Juneau to seize the opportunity firmly, apparently resulting from failure to realize the magnitude of the loss if we fail to develop Glacier Bay now as part of the Juneau region. This is the year the development should start, the year the Marine Highway has opened, the year the vacation travel patterns in Alaska begin to crystallize. Speaking moneywise—which, we must mention, is far from the only way to speak of Glacier Bay—even the minimum conceivable number of people visiting this national park area would be worth more than a million dollars a year to Juneau's economy, and it isn't fantastic to visualize a value of $5 million a year in the relatively near future—not to mention the value of the planned construction itself and other development which would follow once

the monument—which deserves to be a full-fledged national park—gets into the active travel itineraries.

Let's not allow this opportunity to be pulled away from us. Let's put up a real campaign to sell Congress on Glacier Bay development—now—at the strategic time. It's important to all of Alaska.

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The need for facilities at Glacier Bay National Monument is evident. Visitors, in ever-increasing numbers, will use the Marine Highway. They will come to Juneau. Given the opportunity, many will visit the monument.

For nearly four decades since it was established by Presidential decree, this remarkably beautiful monument has been neglected. True, its glaciers are receding slowly; but sometimes, I regret to say, the Federal Government moves at a slower speed.

As we strive to develop the Glacier Bay area, so must Sitka National Monument be developed. I support the proposed expenditure of $124,500 for a visitor center there where American history in the far north began when Alexander Baranov of Russia established headquarters for his nation in Sitka in 1799.

BUREAU OF INDIAN AFFAIRS

The Bureau of Indian Affairs budget for Alaska totals $19,737,083. This includes $5,890,000 for new construction of certain facilities for eight schools. They are:

| | |
|---|---|
| Barrow kitchen multipurpose building | $725,000 |
| Goodnews Bay Day School | 319,000 |
| Koliganek Day School | 358,000 |
| Koyuk Day School | 354,000 |
| Mekoryuk Day School | 552,000 |
| Mountain Village Day School | 300,000 |
| Nome school facilities | 2,921,000 |
| Tuluksak Day School | 361,000 |
| Total, Alaska | 5,890,000 |

The construction would provide 300 classroom seats (replacements) and 300 additional (new) classroom seats. Three hundred children would be given the chance to have high school and elementary schooling who have not had that opportunity previously.

The facilities at the Nome schools include dormitories, kitchen, dining room, and employee quarters. The State of Alaska is constructing a new vocational high school in Nome and the BIA in cooperation with the State is providing the dormitory facilities.

The multipurpose kitchen building in Barrow will permit feeding of 630 students immediately and can, if needed, be expanded to handle 1,000 students.

The Bureau of Indian Affairs reports that the latest school census shows 611 Eskimo, Aleut, and Indian children do not have an opportunity to attend school. The new construction will substantially cut this number.

I am pleased that the Bureau again has requested funds for the day schools at Goodnews Bay and Koliganek, the construction of which had been planned for fiscal year 1964 but subsequently delayed when the use of the Tongue Point facility in Oregon by the Bureau of Indian Affairs for school purposes was approved by the Bureau of the Budget last year. We need to utilize every facility available if we are to bring to every American the opportunity for education he should have.

Specific comment on every budget item for the Bureau is impossible. I do want to endorse the $58,867 proposed for the development of Indian arts and crafts. This sum, I anticipate, will increase as the value of the programs in progress are realized.

As we develop Indian arts and crafts, so we must pay attention to the highly successful training program of young Alaskan men as electronic technicians to man posts on the White Alice Communications System and the Ballistic Missiles Early Warning System and other installations in Alaska.

On February 21, 1962, I spoke to the Secretary of the Interior and outlined the potential savings of such a program in the terms of human and financial responsibilities. Today, the program is fact. It has expanded. I hope the committee will approve the BIA request for $9.3 million for vocational education training.

The Bureau assures me that from this sum will come the funds for the training in electronics of each Alaska native who qualifies. The cost per person for the 18-month course averages $4,000 to $4,500.

To date, 20 young Alaskans have been graduated. Ten have gone to work for the Radio Corp. of America in Alaska. The next 10 to graduate are working for the National Aeronautics and Space Administration in Alaska.

At present, approximately 40 students are in training in Los Angeles. And only last week, on February 26, 40 new students were enrolled in the RCA New York City school. The Bureau of Indian Affairs has assigned two staff members to work full time with the students in New York.

The late President Kennedy in commenting on the worth of the program on August 3, 1962, said: "The amount of money the United States advances for this course will be repaid many times over * * *. I think that the program should be expanded. I think that it can pay us dividends. It can pay Alaska dividends and most of all, the people who are directly involved."

He correctly called the students "the forerunner of an army of increasingly talented and useful citizens." He observed that the future of Alaska, in part, "* * * lies in that kind of advanced educational opportunity for its citizens."

He was right and our Nation is the richer for this investment in citizenship, in proficiency, and in education.

## FISHERIES

The Advance Report on the Fisheries of the United States for 1963, as prepared by the Bureau of Commercial Fisheries, should be required reading.

In his review, Mr. E. A. Power, Chief, Branch of Statistics, quietly tells us that while the United States held fifth place among the fishing nations of the world, the percentage of the world catch taken by U.S. fishermen "continued to decline."

Most alarming, however, is the fact that for the first time in our Nation's history more than half of the U.S. supply (56 percent) of fishery products was imported. The percentage of fishery products imported in this country has doubled since 1950.

How did Alaska participate in the national fishing picture?

1. Halibut landings in Ketchikan and Petersburg dropped and depressed the national catch.

2. The herring catch, smallest since 1917, was about 31 million pounds or 8 percent less than 1962.

3. The salmon catch of red, chum, and pink salmon decreased by 60 million pounds.

4. The dungeness crab catch totaled a record 11.8 million pounds or some 3 million pounds more than in the previous year.

5. The Alaska king crab take of 77 million pounds was recordbreaking, exceeding by 24 million pounds the 1962 figure.

6. The shrimp catch of 14 million-plus pounds was 2.5 million pounds less than in 1962.

The lowered salmon catch in turn depressed the Alaska salmon pack by 708,000 cases.

Thus, in but two instances—the taking of king and dungeness crabs—has the Alaska fishermen been able to increase his catch. His halibut, herring, and shrimp catches dropped. Worse—the statistics of the Bureau of Commercial Fisheries show that fishing in all parts of the Nation could be a great deal better.

Mr. Chairman, I ask unanimous consent that at this point in my remarks be printed the world fish catch of the 10 leading nations for the years 1960, 1961, and 1962. The United States holds to fifth place but the four leading nations catch increasingly larger amounts and statistics as to the actual take of mainland China simply do not exist.

*World fish catch*

CALENDAR YEAR 1960

| Country | Pounds (billion) | Percent | Country | Pounds (billion) | Percent |
|---|---|---|---|---|---|
| 1. Japan | 13.7 | 16.4 | 7. India | 2.6 | 3.1 |
| 2. China | 11.1 | 13.3 | 8. Spain | 2.1 | 2.5 |
| 3. Peru | 7.8 | 9.4 | 9. Canada | 2.047 | 2.5 |
| 4. Russia | 6.7 | 8.1 | 10. United Kingdom | 2.037 | 2.4 |
| 5. United States | 6.2 | 7.5 | | | |
| 6. Norway | 3.5 | 4.2 | World total | 83.2 | |

CALENDAR YEAR 1961

| | | | | | |
|---|---|---|---|---|---|
| 1. Japan | 14.79 | 16.3 | 7. Canada | 2.25 | 2.5 |
| 2. Peru | 11.56 | 12.7 | 8. Spain | 2.24 | 2.5 |
| 3. China (mainland) | 11.07 | [1] 12.2 | 9. India | 2.12 | 2.3 |
| 4. Russia | 7.16 | 7.9 | 10. United Kingdom | 1.98 | 2.2 |
| 5. United States | 6.48 | 7.1 | | | |
| 6. Norway | 3.33 | 3.7 | World total | 90.74 | |

[1] Based on 1959 data.

CALENDAR YEAR 1962

| | | | | | |
|---|---|---|---|---|---|
| 1. Japan | 15.13 | 15.3 | 7. Canada | 2.46 | 2.5 |
| 2. Peru | 15.06 | 15.3 | 8. Spain | 2.22 | 2.3 |
| 3. China (mainland) | 11.07 | [1] 11.2 | 9. India | 2.15 | 2.2 |
| 4. Russia | 7.98 | 8.1 | 10. United Kingdom | 2.08 | 2.1 |
| 5. United States | 6.47 | 6.6 | | | |
| 6. Norway | 2.95 | 3.0 | World total | 98.59 | |

[1] Based on 1959 data.

Source: Information supplied by the Department of the Interior, Mar. 4, 1964.

Much needs to be done.

Legislatively, the Congress can put teeth into the laws which govern the Nation's historical 3-mile territorial sea. The Senate has approved a bill introduced by my able colleague from Alaska which will enable the Government to fine and/or imprison invaders of our waters.

I have introduced S. 1816 and Senator Muskie has joined as a cosponsor of this bill which would extend our fishing waters to 12 miles.

But we must also help our depressed fishing industry. I endorse the budget requests submitted by the Department of the Interior.

I will suggest that an additional $300,000 be made available to the Bureau of Commercial Fisheries for its fish protein concentrate program.

Around the globe most men are hungry. Even as I talk more than half the world's population lacks the necessary animal protein to sustain growth and physical vitality. Those who suffer most are children.

The fisheries of this Nation, if permitted, can contribute significantly to the alleviation of the international hunger problem.

The Bureau of Commercial Fisheries with adequate funding could, I am advised, initiate large scale feasibility studies during fiscal year 1965 which will strengthen the existing research program and, hopefully, help to establish markets for specialized fish protein concentrate products that can be used here and abroad.

Were the additional $300,000 to be made available it could be spent for:

(1) Contractual research on methods of incorporating fish protein concentrate into the diets of people whose food intake is restricted by cost, social and religious customs.

(2) Control and test studies on the nutritional benefits derived by selected population as a result of inclusion of fish protein concentrate into the diet.

(3) Tests involving the inclusion of the concentrates in the diets of selected groups in the United States such as Indians, Eskimos, and migrant workers.

## U.S. Forest Service

Alaska's forest service acreage totals 20,742,224 acres. Within the mighty Tongass and Chugach National Forests are unique and unsolved problems.

Do pesticides used to preserve forests harm salmon? How can logs best be removed from isolated and near-vertical areas? How can logging roads be built and are they necessary or are they habit? Can new aerial logging methods be developed? How can insects and diseases in the forests of Alaska be controlled?

I support the budget request of $5,842,300 and wish at this time to relay to the subcommittee the specific endorsement by members of the Alaska Loggers Association for funds for a research program by the Service to study erosion as it pertains to the salmon spawning area.

I thank the members of this hard-working and patient subcommittee for giving me this opportunity to appear before it today.

### Highlight Statement

Senator Gruening. I want to say that I heard the concluding remarks of Senator Morse, and I am in complete accord with him. We have as serious problems in Alaska as are faced by many of the countries of the world to which we have sent millions of dollars and to which we continue to send vast sums. And if we could merely take what has been sent to anyone of a hundred foreign countries and use it to meet some of the pressing problems of Alaska, problems of unemployment, problems of inadequate school facilities, problems of polluted water, and insufficient hospital accommodations, we would go a long way. And I emphatically share the view that the domestic need should come first. It hasn't been coming first. We now have before us a war on proverty which has been declared by the President. I heartly approve of that declaration of war. But it is not going to be won unless we can evoke the same enthusiasm and support from the Executive that has been shown in the last 17 years for the foreign aid program.

Apparently this war on poverty is going to start on a low level, with a little use of existing facilities and a little "make-do" here. That isn't going to do the job. To me this is the major domestic problem, putting unemployed people to work. Poverty and unemployment are synonymous.

### Cadastral Survey

Now, these provisions here in the Interior budget are all directly or indirectly related to that general question. The additional funds for cadastral surveys merely aim to rectify a situation which developed during our many years of territorialism when surveying by the Federal Government was negligible. One of the earlier hearings on statehood was chaired by Senator Clinton Anderson, who was at that time acting as chairman. He pointed out that at the rate the Federal Government was making the surveys of Alaska it would take 17,000 years to complete them. That situation remained to be rectified after statehood when the State's land program was stymied for lack of surveys.

Thanks to this committee, that situation has improved. But the State of Alaska cannot progress in its land program unless the surveys of the Federal Government by the Interior Department proceed more rapidly.

That is being taken care of in part in this bill.

### Glacier Bay National Monument

One item which at first blush might seem a little extravagant, but is of the greatest importance, is to provide facilities in the Glacier Bay National Monument. The Glacier Bay National Monument was

set aside in 1926, now nearly 40 years ago. And to date the Federal Government has spent virtually nothing there whatsoever except for a small facility for the park personnel; nothing to take care of visitors.

There is a tendency on the part of people to praise their State's particular beauties and exalt them beyond those of any other region. But I was much impressed by the testimony of Elvin Thorsten Scoyen, who retired recently as Associate Director of the National Park Service, after a long and dedicated career in it. He told me that through all the years when people came to him and asked him which was the most beautiful park, he thought it was a matter of propriety and good procedure not to reply because he didn't want, as a public official, to arouse controversy. But upon retiring he felt free to give his view that by far the most beautiful of all the wonderful areas in our national park system was Glacier Bay Monument.

I have seen virtually all the national parks, and I would say that statement is pretty nearly correct. It is a unique park although designated as a monument. You go into this tremendous bay where you see some 30 tidal glaciers, surmounted by Mount Fairweather which rises 15,300 feet from the sea. Thus its full height can be seen. In no other place under the flag can one see the full light of our mountains, higher than any in the older 48 States.

VISITOR'S FACILITIES

There is no way to get to Glacier Bay National Monument except by air or chartered boat. And it is impossible to create facilities for the tourists who want to go there unless we get this appropriation.

Last year the appropriation was turned down in the House on the ground that there were so few visitors. Actually there were over 5,000 visitors—a remarkable number considering they couldn't stay there and because it was very difficult for them to go there.

MARINE HIGHWAY—FERRY SYSTEM

And in addition to that, the record is made only of those who contact the park rangers, whom the park rangers actually see when the visitors check in there. They can't do it in this area which is the third largest park area under the American flag. It is only slightly smaller than Yellowstone. The appropriation for accommodations there dovetail into an effort which the State of Alaska has performed singlehanded in order to overcome physiographic difficulties.

Upon statehood Governor Egan proposed to the State legislature that the State bond itself to the extent of $23 million to build what we call a marine highway, a great superferry system. It has built three ferries some 300 feet long which carry over a hundred cars. This compensates for the fact that there is no other way to get to Alaska on the surface. Ordinary shipping, passenger shipping, was suspended in 1954. That was the last year in which the Alaska Steamship Co. was supplying both passenger and freight traffic. We have had no regular marine passenger service since. So there was no way in which people could come up the beautiful inside passage, that unique thousand-mile waterway stretching from Puget Sound to Skagway, except that in the summertime the Canadian Pacific runs a weekly steamer, and Canadian National runs occasional

cruise boats. And then there are a couple of very fine cruise ships run by an enterprising and pioneering Alaskan named Charles West. But those are occasional.

### Alaska and the Federal Aid Highway Program

Now, this ferry system, this proposal, went to the legislature; they approved it; it went to the people of Alaska, who voted this $23 million bond issue. And not 1 cent of Federal aid went to Alaska to help this great undertaking. It is significant that until 1956—for 40 years—Alaska was totally excluded from Federal aid highway participation.

During these 40 years from the passage of the Federal Aid highway legislation in 1916, Alaska was totally excluded, while that legislation was building up a magnificient network of highways in the 48 States, Alaska didn't get a cent. And beginning in 1956 when we were represented very ably in the House by a voteless delegate Bob Bartlett, who, like his predecessors, had tried ever since 1916 to get some participation in the Federal aid program but without success, we were put in on a very partial basis. So for 3 years, from 1956 to 1959, we did get a small amount. As a result today Alaska is virtually without roads, and we have a lot of catching up to do.

### Tourist Facilities Budget Request

Now, this ferry system will bring beginning this year—and it runs through the year—300 or 400 people a day who will have no place to go in Glacier Bay unless the Government gives them these facilities. Private enterprise cannot do it. I wish it could. And it seems to me that that is a very proper contribution for the Federal Government to make considering its 40-year discrimination on transportation. The total cost is about a million and a half dollars. It is not comparable to what the State of Alaska has expended to enable people to get there.

So I hope very much that this item will be retained by this committee. It has now been presented by the Bureau of the Budget. It was in the budget last year and was taken out by the House, and I trust that this year the House will keep it in.

Senator Bible. And it is in the budget again this year?

Senator Gruening. It is in the budget again this year.

### Indian Schools and Unemployment

Now, those are the principal things. There are appropriations for Indian schools. There again is a situation which ties in with this whole unemployment problem. We have a large unemployment among our native population, and the unemployment exists largely because they haven't had the education to take the more skilled jobs which are now coming up.

We are behind in our school program, but are making a valiant effort to catch up. And these modest appropriations provided here are very desirable. We need these schools, we need these facilities. The time must come—indeed is long overdue—when we should have every native child in the school, which has not been the case.

So I hope that the committee will approve this entire appropriation requested by the Interior Department. I think there is nothing extravagant in it; indeed it is modest considering Alaska's needs and the long history of neglect and discrimination. We can think of a lot more we should have.

EXCLUSION FROM THE FEDERAL AID HIGHWAY PROGRAM

Senator BIBLE. Might I ask only one question, Mr. Chairman?

I may not have understood him correctly, but I think he said something about the people today having to pay their own way to get up there and pay their own expenses. Maybe I didn't understand you correctly. But what is so unusual in this? You have to pay your own way in any national park.

Senator GRUENING. I think you misunderstood me.

Senator BIBLE. Maybe I didn't understand you.

Senator GRUENING. What I said in effect is that we have had as a result of discrimination from 1916 on totally until 1956, and then only very slightly for the 3 years preceding statehood, exclusion from the Federal aid highway program and while in the 48 States the magnificent networks of roads were being built, we were totally excluded from them.

Senator BIBLE. You were referring to the highways and not the park?

Senator GRUENING. Yes.

Senator BIBLE. You were using this because you were talking about the Glacier Bay National Monument?

MARINE HIGHWAY FINANCED SOLELY BY ALASKA

Senator GRUENING. I am using it because we now have invested at Alaska's own expense $23 million to make it possible for people to come up by a marine highway, which is the only way you can come up this rugged inside passage. We might have argued with the Federal Government that in this area of precipitous shore and islands in which a land highway cannot be built and where a marine highway is the only possible substitute, that we were entitled to Federal funds. We didn't do that, we didn't even attempt it. The people of Alaska dug down in their own jeans and produced this. Now the tourists are coming, as my written statement documents. As a supplement to this, as a complement to this marine highway, this magnificent park which is called a monument and has been in existence for nearly 40 years without having a nickel expended on it to make it available to the public, we request the Federal Government to make it possible for the public to enjoy it.

Senator BIBLE. I didn't understand your point earlier, and I wanted the record clear.

Senator GRUENING. Any questions?

Senator BARTLETT. Mr. Chairman, since I have no disagreement, I have no questions.

Senator GRUENING. Thank you very much, gentlemen. I appreciate your giving us this opportunity.

Chairman HAYDEN. Senator Moss.

## STATEMENT OF HON. FRANK E. MOSS, U.S. SENATOR FROM THE STATE OF UTAH

### Support of 1965 Budget Estimate

Senator Moss. Mr. Chairman and members of the subcommittee, I have a full statement; I would like to highlight parts of it.

Let me say that it is always a pleasure to appear before this subcommittee. I appreciate the enduring concern of its chairman, and members, for the full conservation of our natural resources, and for the continued welfare of the West as a whole. Those of us who appear here each year to testify on the appropriation requests of the Interior Department and related agencies, and who outline the special problems in these areas in our own States, do not always take time to say "Thank you" for the thought and attention you give to us.

So I want to take just a moment here today before proceeding to thank you, Mr. Chairman, and to thank the members of the committee, for your understanding and sympathy for Utah's special problems, and for your generosity to the State in the past. I am confident that the requests I make here today will be given the same thoughtful consideration.

### Forest Service

I support, of course, the funds requested for the Interior Department and related agencies for the fiscal year 1965. I was pleased, as I know you all were, that the requests for the fiscal 1965 totaled $643,617,000, which is some $40 million more than the amount appropriated for the same agencies for the fiscal year 1964. I am gratified also that the amount requested for the Forest Service for the fiscal year 1965 is $253,824,000, or some $18 million more than is being spent in the current fiscal year.

This is continuing evidence that the Kennedy-Johnson administration is determined to keep resource development moving ahead at a steady pace. It is proof that despite the "tight" budget for the coming fiscal year, the needs of the West are not to be overlooked or neglected.

### Budget Increases

I ask that funds be increased for two agencies: the Fish and Wildlife Service and the Forest Service. There are two items in the Fish and Wildlife Service which I feel should be augmented, and I will discuss these first.

### Ouray National Wildlife Refuge

As you know, the Fish and Wildlife Service is building the Ouray National Wildlife Refuge in the Uintah Basin of eastern Utah. The total cost of the refuge is estimated at $1,300,000 and it is to be completed within a 5-year construction period. When all work is done, the refuge will provide habitat conditions capable of producing at least 1,000 geese each year with sufficient food to maintain a peak population of 3,000 during migration and an annual use-day population of 400,000.

In addition, it is expected that the refuge will produce 13,000 ducks each year, provide food for peak populations of 75,000 ducks during fall migration with overall duck use-days totaling 4,250,000.

RECREATIONAL DEVELOPMENT

The recreational development provided by the refuge will allow waterfowl hunting when populations on the refuge are sufficient to safely permit harvest. A visitors' center and an exhibition pond with an appeal to all ages is included in the long-range planning. There will be observation points, picnic tables, fire grates, and parking space for recreational users. Naturally, there is great interest in the early completion of this refuge in the Uintah Basin and in the State as a whole. Utah is a great sportmen's State, so protecting and augmenting our wildlife is most important to us.

BUILDINGS, DIKES, AND WATER CONTROL

The budget request for the refuge for the fiscal year 1965 is only $115,000 which is to be used for buildings and the construction of dikes and water control facilities. This is a "starvation" budget, Mr. Chairman—the Ouray Wildlife Refuge can never be completed on schedule if no more than this is done in the coming fiscal year. If such a snail's pace rate of development is allowed to stand it will be nearer 10 years than 5 before the refuge is a reality and the people of Utah can enjoy its benefits.

PROPOSED BUDGET USES

I asked the Fish and Wildlife officials who advised me that an additional $232,400 can be used to good advantage in the fiscal year 1965 for the Ouray Refuge. It would be expended as follows:

| | |
|---|---|
| Boundary fencing, 33 miles | $32,400 |
| Additional buildings, including residences, sanitary system, headquarters road and parking, oil and paint storage building, gasoline storage tanks, water supply system, electric system | 86,500 |
| Canals, dikes, water control structures, riprap, gravel surfacing dikes, pumping facilities in Leota bottoms | 113,500 |
| Total | 232,400 |

Now, I realize that we are working on a frugal budget, and I do not want to appear unreasonable in my requests for Utah. I support only responsible and necessary spending—but I feel that development of the Ouray Refuge to protect our wildlife is in that category. I hope this important wildlife development in Utah will not be starved. I would like to see the full amount which the Service efficiently can use recommended for appropriation—at the very least, I feel that the budget request should be increased by $232,400.

SPRINGVILLE FISH HATCHERY

The second fish and wildlife amendment I wish to discuss concerns the Springville Fish Hatchery in Utah County. You may remember that when I appeared before this subcommittee last year I argued that the hatchery needs a new start in life, and pleaded for funds to do so. Because of other urgent matters the subcommittee could not see its way clear to grant my request, and I repeat it this year.

The Springville National Fish Hatchery has been a Utah landmark for many years. It is running out of water, and the hatchery building, a 47-year old wooden structure, is outmoded and badly deteriorated. The Fish and Wildlife Service estimates that a complete renovation job, undertaken in two phases, could be done for $246,000.

### WATER IMPROVEMENT PROGRAM

The first phase would cover a water improvement program carried out through collection of spring flows, protection of intake facilities, and installation of pipeline facilities to provide an efficient system. This phase would also include the construction of a modern fish hatchery, which would incorporate a small aquarium display room for the education of the visiting public.

### REHABILITATION PROGRAM

The second phase would rehabilitate present ponds, construct additional ponds, and build fences, roads, and sidewalks.

At present the hatchery produces rainbow and brook trout, and some warm water fish for distribution to waters in national forests, Indian reservations, and military reservations. The decreasing water supply makes it more and more difficult to meet current production levels of 75,000 pounds of trout a year, which would more adequately stock the area, and more fully preserve and enhance the fisheries resources on lands under Federal control. The first phase would cost approximately $168,000 and the second phase $78,000. If the first phase could be financed this year, the second phase could be delayed until the fiscal year 1966.

Chairman HAYDEN. Where are the fish that are grown there planted?

Senator Moss. They are planted in Federal reservoirs in projects, on Indian reservations, and some military reservations, all Federal places.

### FISH HATCHERIES IN UTAH

Senator BIBLE. How many fish hatcheries does Utah have now, State and Federal?

Senator Moss. There is only one operating Federal hatchery at the present, the Springville hatchery. The Jones Hole hatchery in the Uintah Basin is under construction, but it will be some time before it is completed.

There are 12 State fish hatcheries and rearing stations, some of which are very small.

FOREST SERVICE

Senator Moss. My final request is for a modest increase in funds for the forestry research program underway at the nearly completed Forestry Sciences Laboratory on the campus of the Utah State University at Logan.

The budget request for this laboratory for the fiscal year 1965 is $252,000; essentially the same amount as was provided in the fiscal year 1964. The funds are programed for research in watershed management, range management, insect and disease control, and recreation.

WATERSHED AND RANGE MANAGEMENT RESEARCH PROJECTS

I feel very strongly that both the watershed and range management research projects should be strengthened, since they deal with one of our most pressing problems in the West, that of improving the vegetation and water yield of the high mountain watersheds above the Great Basin, which, as you know, includes parts of Nevada and Wyoming, as well as Utah. I am advised that the laboratory could accommodate an increase in the research program of $250,000, $200,000 of which could be well utilized for watershed management studies, and $50,000 for the range management studies to maintain a coordinated and balanced program for the high mountain watersheds.

I submit a recent letter which Dr. Floyd of the Utah State University recently wrote to me.

(The letter referred to follows:)

WILDLAND PROBLEMS

* * * The forest and rangelands of Utah and adjacent areas are the principal source of water used by cities, industries, and farmers. These same lands provide summer forage for the livestock industry, a significant segment of our economy. Recreation has become an extremely important activity on these mountain lands. In the face of increasing demands for the products from our wildlands, the actual productivity, under present practices, falls short of the potential.

Such practices as overgrazing, burning, and in some instance, logging, have created problems of soil instability, reduce forage production, floods, and erratic streamflow. On a lesser scale, recreation has created its own damage. Heavily used campgrounds have sustained severe impacts on vegetation and soil. The clamor for increased water yields, the necessity of reducing grazing permits, expensive treatments to stabilize watersheds, and the deteriorated condition of many recreation areas are indicative of present wildland problems.

These problems strike at the root of the livestock industry and recreational activity by reducing the value and utility of their resources. They also affect adversely our water supply, which is the limiting factor in economic development in our State. Further impairment of amount and quality of water yields would threaten the existence of some of our communities.

Some of our important tree species in Utah are being damaged by native rusts. Losses accrue from attacks by rusts that kill trees or diminish their growth. Intelligent damage appraisals and sound control measures cannot be developed until the taxonomy, life cycles, and host relationships of the causal fungi can be established by research.

Numerous forest insects cause untold losses to timber stands. Bark beetle attacks have devastated lodgepole pine stands in Utah and Idaho in recent years at alarming rates. There is a lack of knowledge on the complex relations between the insect, its natural enemies, its lodgepole pine host, stand and site conditions, weather, and other factors. Preventive measures, if known, would be better than costly direct control measures. * * *.

FORESTRY SCIENCES LABORATORY

Senator Moss. The program of the Forestry Sciences Laboratory is designed to get the answers to some of these problems, and to develop the techniques to meet them. Rather than taking the time of the subcommittee to detail the work proposed for the laboratory, I ask that background and explanatory material be included at this point in my testimony.

Chairman HAYDEN. Any objection?

(The statement referred to follows:)

FOREST AND RANGE WATERSHED MANAGEMENT RESEARCH, LOGAN, UTAH

The forest and mountain rangelands ringing the Great Basin constitute the vital water source areas that the entire economy of the Great Basin is dependent upon. The agricultural-industrial complex of the Great Basin States together with the expanding municipalities could not exist without the water from the mountain watersheds. Water needs at present exceed the dependable supplies and during years of below-normal precipitation some uses must be curtailed. Future expansion of industry and agriculture will be dependent upon assured supplies of quality water.

These same mountain watersheds pose a threat to the adjacent lowlands of possible destructive floods from steep slopes that have been denuded by overgrazing and wildfire. These floods originate from severely deteriorated areas that will not heal readily by natural means. Rehabilitation of these damaged areas is needed to retard floodflows and reduce excessive erosion and sedimentation.

The present research program carried on by the Forest Service in cooperation with Utah State University at Logan is aimed at obtaining the needed know-how to meet the most urgent problems of water-yield improvement and flood reduction. But this program is not nearly commensurate with the magnitude and urgency of the need. A greatly strengthened effort is needed to cover the complex problems represented by such a variety of soils, vegetation, geology, topography and climatic patterns and obtain usable, practical, and timely solutions.

An increase of $250,000 would provide for those studies needed to develop effective and efficient management techniques for increasing water yields, or prolonging flows into periods of drought, reducing flood runoff and sedimentation and providing adequate forage for domestic livestock.

The nearly completed Forestry Sciences Laboratory of the Forest Service on the Utah State University campus will provide the necessary facilities for the research program and the suggested increase would provide for the full and effective use of the laboratory facilities.

RESEARCH IN WATER YIELD IMPROVEMENTS AND FLOOD COLLECTION

Senator Moss. The one that I wish to make is that the need for expanded research in water-yield improvements and flood collection is most urgent, and that only by increasing the research budget for the Forestry Sciences Laboratory can we be assured the most effective use of this newly established and most important facility.

NATIONAL PARK SERVICE IN UTAH

In conclusion, I would like to emphasize that I especially support the fiscal year 1965 budget requests for programs involving the activities of the National Park Service within the State of Utah. The total requested is $5,690,000. We can use to good advantage every dollar of it.

Included in this total is not only the operation, maintenance, and construction programs for the national parks and monuments already established in Utah, but funds for the development of the new Glen Canyon and Flaming George Recreation Areas, which offer tremendous new recreation and tourist potentials in the State. I ask that a breakdown of the budget requests for the activities of the National Park Service in the State of Utah be included with this statement.

(The data referred to follows:)

*Summary of funds requested for the State of Utah in the President's budget for fiscal year 1965*

| | Operations and maintenance | Acquisition of land and water rights | Construction | | Total |
|---|---|---|---|---|---|
| | | | Appropriated to NPS | Transfers from Bureau of Reclamation | |
| Arches National Monument | $100,100 | | $128,000 | | $228,100 |
| Bruce Canyon National Park | 262,600 | | 74,900 | | 337,500 |
| Capitol Reef National Monument | 106,800 | | 52,200 | | 159,000 |
| Cedar Breaks National Monument | 38,000 | | | | 38,000 |
| Dinosaur National Monument | 78,100 | | 853,900 | | 932,000 |
| Flaming Gorge National Recreation Area | 86,000 | $5,500 | | $779,200 | 870,700 |
| Glen Canyon National Recreation Area | 449,800 | 27,000 | | 1,352,600 | 1,829,400 |
| Hovenweep National Monument | 7,000 | | | | 7,000 |
| Natural Bridges National Monument | 17,700 | | 540,000 | | 557,700 |
| Rainbow Bridge National Monument | 300 | | | | 300 |
| Timpanogos Cave National Monument | 74,700 | | 20,000 | | 94,700 |
| Zion National Park | 394,300 | | 241,700 | | 636,000 |
| Total | 1,615,400 | 32,500 | 1,910,700 | 2,131,800 | 5,690,400 |

## Combating Coal Mine Dangers

The Bureau of Mines: I am sure members of this subcommittee will recall the tragic mine accident which occurred in Carbon County, Utah, on December 16. Nine men died in the dark cavern of a coal mine there as a result of an explosion touched off when a continuous miner struck hard rock in the mine roof, causing sparks to ignite a coal dust methane mixture. This blast—and the loss of nine lives—pointed up the great need for a practical methane monitor and for an effective means of combating the newest danger in coal mines from deposits of extremely fine float dust created by continuous miners.

RESEARCH PROGRAMS

The Bureau of Mines has been operating under a high priority crash research program to develop equipment and means to supply this urgent need, but I am advised that a fully effective research program for the fiscal year 1965 would require the following increases:

1. Fine coal float dust explosion research, $370,000.
2. Methane detection and monitoring research, $100,000.
3. Mine ventilation research and investigation, $150,000.

This is the type of research which I feel must not be delayed. We owe it to the men who spend their lives in our mines to do what we can to make them as safe as possible. I submit to the subcommittee a statement describing in detail the three major research programs in this field. I support the requests for additional funds.

(The statement referred to follows:)

DESCRIPTION OF THE PROGRAMS

*1. Fine-coal float-dust explosion research: Increase requested for fiscal year 1965, $370,000*

With the tremendous progress in mechanized mining technology and concentrated loading at mine faces, problems and hazards of mine explosions and fires have greatly increased. Further dust explosion research is vital to develop basic criteria that will permit evaluation of present safety standards in modern mining, particularly as applied to fine-coal float dust. Concentrated mechanical mining has greatly intensified the float-dust problem and requires that basic rock-dust standards considered adequate for many years be improved and possibly supplemented by other means to control float-dust explosions, including rock-dust barriers. The Bureau of Mines is responsible for conducting research to reduce this hazard by determining float-dust characteristics and methods for collecting, inhibiting, or otherwise limiting deposition of fine-coal dust thereby minimizing the difficult and often poorly applied rock dust to coal mine surfaces.

The instruments presently used at the Bureau's experimental coal mine are obsolete, inadequate, and inaccurate for obtaining needed information. Present dust preparation equipment is old, hazardous to operate, and incapable of providing coal dust of the required fineness in the quantity desired for the proposed large-scale experiments. New auxiliary facilities should be provided to study the transport and deposition of float dust as affected by air velocity, particle size, type, and quantity of dust. Fundamental information is necessary for coal rock, and other dusts to facilitate meaningful large-scale mine experiments. The requested increase in funds will provide for replacing obsolete equipment, including instrumentation, and the addition of 12 new positions—4 professional, 7 subprofessional, and 1 clerical—to carry on the expanded research.

Experience from recent coal mine diasasters emphasizes that the need for fundamental research in the experimental coal mine is fully as great, if not greater, than when the Bureau of Mines was organized. Results obtained at the experimental coal mine have merited national reputation. The coal mine industry depends upon the continued development of Bureau of Mines information through exhaustive experiments which utilize technological progress toward improving safety in modern coal mining operations.

*2. Methane detection and monitoring research: Increase requested for fiscal year 1965, $100,000*

In coal mine operation there is an imperative need for rugged, practical devices for precise, automatic methane detection and monitoring. Additional funds are required to expand and expedite research and development of this high-priority project to provide more adequate testing and investigation of many physical principles that might be used for methane detection and to discover and develop auxiliary equipment for an automatic monitoring system that must not be affected by the rugged use of operating mining machines.

Investigations of recent coal mine explosions have disclosed that human failure to test for and detect methane buildup in the working face areas was an important contributory factor. To overcome the frailty of human nature a device is required that will continually sample the mine atmosphere in the working area,

sound an alarm when the methane content reaches approximately 1.5 percent; then, if this warning is ignored, cut off electric power from the equipment and power cables in the affected area when the methane content reaches about 2.5 percent.

Enlargement of methane detection research and field testing of methane monitors through additional personnel, consisting of six professional and one clerical positions, and development of specialized instruments and facilities will enable the Bureau of Mines to maintain its rightful leadership in preventing accidents and injuries from methane ignitions and explosions. Current research to develop a practical methane monitor has been encouraging but much more remains to be done to improve various components to provide the most reliable instrument possible.

*3. Mine ventilation research and investigations: Increase requested for fiscal year 196 , $150,000*

Long-range planning is required to fortify the Bureau of Mines reputation throughout the mining industry to direct and guide progress in mine ventilation—a field in which expert knowledge is limited. The Bureau's capabilities in this field should be extended to keep abreast of rapidly advancing mining methods, to maintain its high standard of leadership, and to provide the mining industry with improved technological information.

Ventilation is a foremost safety factor in all kinds of underground mining operations, and becomes progressively more difficult as coal and ores are extracted from increasing depths below the earth's surface. Even now some gassy coal mines can be operated only with the most exacting attention to ventilation to prevent dangerous accumulations of methane. Expecially vital is the need to improve ventilation in face areas to conteract the effects of rapid liberation of dangerous gas and generation of explosive dust. New methods of mining and more powerful mining machines, both developed for more rapid, economic, and efficient extraction of mineral substances, have intensified hazards in the face areas and complicated the problems of providing adequate ventilation. Increasing use of diesel-powered equipment and new types of blasting agents require careful attention of the ventilation engineer. With mining at greater depths, air conditioning and cooling are required in many instances to maintain the comfort, health, and productivity of mine workmen, with corresponding need for engineering knowledge and skill for effective design and operation. The augmented mine ventilation research program would embrace the establishment of four additional professional positions.

Ventilation studies necessitate laboratory experiments to improve instrumentation and measurements used to study fan performance and design for special face-ventilation applications, vent-tube air conductors, patterns of airflow with changes in velocity, characteristics of blowing and exhausting systems, resistance factors as they affect loss and regain of static pressure, and power needs. Such information requires supplemental trials and analyses of ventilating systems in commercial mines to appraise their effectiveness. Ventilation costs at different operations require analysis to obtain data that will assist mine management in improving ventilation of their mines thereby increasing safety, particularly in face areas of coal mines, or point the need for installing new ventilating equipment. Increased facilities and personnel are needed for detailed studies by the absolute pressure method and other advanced techniques to aid mine managements in detecting and correcting abnormalties and to increase efficiency. Field observations are necessary to keep abreast of new industrial developments in ventilation equipment; mine air conditioning; use of synthetic foams and mineral products for mine stoppings, dust collectors, and space filters; and instrumentation pertaining thereto.

APPRECIATIONS

Senator Moss. Once again may I thank you, Mr. Chairman and members of the subcommittee, for hearing me, for giving careful attention as you always do to requests that I make. I do hope that these matters that I have pointed to that seem to me to be particularly urgent will receive your careful attention.

Chairman HAYDEN. Thank you.

Senator BIBLE. Mr. Chairman, I have no questions. I simply want to commend Senator Moss. This is an unusually fine statement, and it is unusually well documented and presented.

Senator BARTLETT. I agree with that.

Senator Moss. Thank you.

Chairman HAYDEN. Senator Hart.

## STATEMENT OF HON. PHILIP A. HART, U.S. SENATOR FROM THE STATE OF MICHIGAN

FOREST ENGINEERING LABORATORY, HOUGHTON, MICH.

Senator HART. Mr. Chairman and members of the committee, I couldn't find a word formula more eloquent than that used by Senator Moss to express my appreciation for your kindness in letting me come in. And I share his optimism as to the future.

Mine is a very brief statement, Mr. Chairman, and I think rather than summarizing it I would take less time if I read it.

Chairman HAYDEN. Very well.

Senator HART. I am joined by my senior colleague, Senator McNamara, in urging that an item in the amount of $372,000 be included in your bill for construction of the Forest Engineering Lab at Houghton, Mich. Last year you provided $28,000 for design and specifications. That contract has been let. It is my understanding that the plans will be completed early in fiscal 1965, and that construction could start soon if the funds are appropriated now.

AREA TO BE SERVED BY LABORATORY

May I call your attention to this map prepared by the Area Redevelopment Administration to emphasize the Upper Peninsula of Michigan and the upper reaches of Wisconsin and Minnesota, which will be the area primarily served by this laboratory. You will notice that every Michigan County in our Upper Peninsula, 15, is identified as having high unemployment.

Senator BARTLETT. That is the green area?

Senator HART. The green area—about twice the national average. The same is also true of the upper counties of Wisconsin and Minnesota.

UNEMPLOYMENT IN AREA

Senator BIBLE. Do you have any percentage figures on the unemployment in the green reaches to which you refer? Is it 7, 8, or 9 percent, something in that range?

Senator HART. It ranges about twice the national average, which would make it higher than that.

Senator BIBLE. Make it 10 or 11 percent possibly?

Senator HART. Yes, sir. Actually, the latest figure available is 11.4 percent in the Michigan Upper Peninsula.

HOUGHTON, MICH.

Senator BIBLE. Is Houghton the departure point for Isle Royale National Park?

Senator HART. It is the departure point for Isle Royale. It is also the site of what was known for some years as the Michigan College of Mining & Technology, now Michigan Technological University. The university has given 6 acres as the site for this lab, and the lab will be coordinated with the really excellent faculty of that university.

Senator BIBLE. What is the population of Houghton?

Senator HART. 3,393 according to the 1960 census. For Houghton-Hancock it is about 9,000.

MICHIGAN TECHNOLOGICAL UNIVERSITY

Senator BIBLE. And how many attend the university?

Senator HART. 3,300 attend the university. They have graduated, over the years, about 15,000. They are located in 50 countries of the world. It is an extraordinary educational institution. And as the father of eight children, I would hope that some of ours would wind up in that kind of setting. There are very few distractions.

Senator BARTLETT. It is clear that the Senator does not lack figures.

Senator HART. I am one of their honored alumni, if that is the way you put it.

Senator BARTLETT. You are of the 15,000?

Senator HART. No. They were gracious enough, although I am a Greek and history man myself, to honor me with an honorary degree.

Senator BARTLETT. They honored themselves.

Senator BIBLE. I share that.

### Mining and Timber Industry

Senator Hart. Our two current major industries in this whole reach of the Upper Great Lake Basin, as you know so well, Mr. Chairman, are mining and timber.

And both of these industries face major readjustments. Strengthening timber-based industry is one good way to make better use of a natural resource native to this whole area. We have coming back rapidly in the Lake States a new second growth forest. There are over 50 million acres of marketable timber in the reach of those three States. The challenge the area faces now is to harvest and use the timber, put it to useful purposes in supporting the growth of a strong forest industry.

The proposed forest engineering laboratory would bring to northern Michigan a research effort of considerable potential which would aid immeasurably in bringing about more efficient and new mtehods of production.

### Timber Reproduction

Chairman Hayden. Is the type of timber that grows there the type that can be quickly reproduced?

Senator Hart. It would depend a little on your definition of "quickly," Mr. Chairman.

Chairman Hayden. In Arizona, because of the lack of rainfall, there are trees standing now that were saplings when that country belonged to Mexico. It is very slow growth. And I didn't know but what with more abundant rainfall your timber production would be greater.

Senator Hart. It is greater. My information is that you can begin to remove some saw log material and thinning at 60 years. For pulpwood I believe you can make a commercial thinning at age 30.

### Improved Timber Harvesting Systems

This laboratory program would stress development of improved timber harvesting systems. It would, for example, study how to produce more efficiently wood chips from round wood in the forest; it would study ways and means for reducing the costs for harvesting and transporting wood to pulp and other mills. Furthermore, it would provide a central laboratory where forest industries could bring forest engineering problems for study and help. All of these activities have one objective—to make for a more prosperous and a growing forest development in the north, thus bringing about a more healthy economy. In these northern counties which have suffered the adversities of underemployment and declining use of timber, technological improvements are essential and should be speeded.

### Forest Engineering Project

I have commented, Mr. Chairman and members of the committee, that the Michigan Technological University is assisting in the forest engineering project, having made available the site at no cost. With construction of the laboratory the cooperative feature of the research program would be strengthened. Greater faculty and student participation would be possible as an outgrowth of the improvement of facilities.

So by making construction funds available in fiscal 1965, building of the lab could get underway, much needed employment would be provided, a program having long-range implications for improving the efficiency of the timber industry would be moving ahead, and we would be putting the resources of Michigan Technological University and of the Forest Service together in a promising research effort.

GREAT LAKES BASIN ECONOMY

Senator McNamara and I hope you will permit us to move forward with this important element in upper Michigan's economic development. And though I sound parochial, it affects intimately the economic life of Minnesota and Wisconsin and the whole Great Lakes Basin.

BUREAU OF OUTDOOR RECREATION

If I could, Mr. Chairman, express a hope with respect to one other item in the Interior budget, I would hope that the committee will act favorably on the request of the Bureau of Outdoor Recreation, for a total of $2.7 million. With the rapidly expanding population of this country, the increase in leisure time, the higher earning capacity of our people, the planning and coordinating functions of this small bureau are essential. I hesitate to say this in the presence of Senator Bible, who knows so much more about the overall problem than I, but to the extent that I can see it I feel deeply the value that can be contributed to all of us, including those whom we should represent but who haven't yet been born, by this Bureau of Outdoor Recreation.

And I ask that several letters be inserted in the record.

(The letters referred to follow:)

FOREST ENGINEERING LABORATORY

[Telegram]

HOUGHTON, MICH., *February 25, 1964.*

Hon. PHILIP A. HART,
*Senate Office Building,*
*Washington, D.C.:*

Respectfully urge that funds for construction and operation of forest-engineering laboratory on Michigan Tech campus be allocated. Present engineering laboratory on campus, as well as its annual operating budget, is inadequate. This new proposed facility would be a needed stimulus for the wood products industry throughout the entire lake States area. Would appreciate it if this message were made a part of the hearing record.

Very truly yours,

JOHN J. HOWARD,
*Executive Vice President,*
*Houghton National Bank.*

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NEED FOR THE LABORATORY

FEBRUARY 25, 1964.

Hon. PHILIP A. HART,
*Senate Office Building, Washington, D.C.*

DEAR SENATOR HART: In conjunction with the wisest use of our natural resources in the Upper Peninsula, we have several programs of research. The Lake States Forest Experiment Station of the U.S. Forest Service very recently received money to design a laboratory to be located on the Michigan Technological University campus. However, no money has been set up in the budget for actual construction of the laboratory.

We know that wood is one of our sustaining natural resources. Research has been responsible in part for new wood-using industries in the Upper Peninsula and the expansion of several papermills and sawmills. This means construction dollars, payroll dollars, and tax dollars. We have a golden opportunity to help stimulate this business.

President Kennedy, at the Land and People Conference in Duluth this fall, said, "Our goal is the full employment of both the natural and human resources which this area still possesses in abundance."

President Johnson has endorsed this attitude and concurs with statements made at the Land and People Conference. (This is what we are trying to do with this project.)

We respectfully urge that you use your best efforts to impress the committee at the Senate hearing with the need for this facility. Would you endeavor to have this communication read into the record and included as part of the record at the hearing in the Senate.

Sincerely yours,

S. M. COHODAS, *President.*

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FOREST RESOURCES INVESTIGATIONS

FEBRUARY 25, 1964.

Hon. PHILIP A. HART,
*U.S. Senate,*
*Washington, D.C.*

DEAR SENATOR HART: A badly needed resurvey of Upper Peninsula forests is going to be started this year. Lack of up-to-date statistics on forest resources has hampered planning for wood products development here. Some of our best available figures are nearly 20 years old and are no longer representative of our growing timber inventory. You can't interest new industry with obsolete figures.

In our territory the Lake States Forest Experiment Station does the survey. Their goal is to provide new statistics at 10-year intervals but progress has been slowed by lack of funds. The State and the forest industries will contribute funds to intensify the coverage and produce good estimates by counties but the Federal part is slow in getting started.

I see that the President's budget has a $150,000 increase for forest resource investigations, nationwide. This doesn't seem like very much—we could easily use it all in stepping up the work in Michigan. I hope that it is approved and that it is distributed for work in depressed areas where resource figures are out of date. That describes our situation in the Upper Peninsula.

I would appreciate it if you would have my statement made a part of the record of the hearings before the Senate Subcommittee on Appropriations for Interior and Related Agencies. We would like to get on record as favoring an increase in this work of collecting basic facts on current timber supplies.

Sincerely yours,

WILLIAM F. WILSON, *Executive Manager.*

ESTIMATED OVERALL COST

Chairman HAYDEN. Any questions?

Senator BIBLE. Only one question, Mr. Chairman. I just want to be clear in my own mind that the total cost is $400,000.

Senator HART. $28,000 plus $372,000.

Senator BIBLE. That is the total overall cost, that is what it will cost to build it?

Senator HART. That is the building; yes.

OUTDOOR RECREATION BUDGET

Senator BARTLETT. Do you happen to know if the $2,700,000 is a budgeted item for the outdoor recreation?

Senator HART. It is my understanding it is.

Senator BARTLETT. I want to compliment you on an excellent statement, a persuasive one. It is comparable in many ways, it

seems to me, with that of Senator Morse. It refers to depressed areas in our country to which we have an obligation to pay primary attention.

Senator BIBLE. I want to say one thing, Mr. Chairman. The Senator from Michigan mentioned my work in the field of outdoor recreation, parks, and lakeshores and seashores, and I simply want to say that I don't know of a more ardent and persuasive and vigorous and unrelenting champion of attempting to get lakeshores on all of the lakes of Michigan than the junior Senator from Michigan. And I am very glad to testify to that, because he has twisted my arm until I could hardly carry it at times.

Senator HART. Senator Bible in his role as chairman of the Public Lands Subcommittee has responded very well to the needs of the present and the future.

Senator BIBLE. You were fighting for a cause, and I commend you.

Chairman HAYDEN. Senator Monroney.

## STATEMENT OF HON. A. S. MIKE MONRONEY, U.S. SENATOR FROM THE STATE OF OKLAHOMA

### JOHN F. KENNEDY CENTER FOR THE PERFORMING ARTS

Senator MONRONEY. Mr. Chairman and members of the committee, I appreciate your willingness to hear me testify about a matter which in the light of the amounts often requested of this committee may appear to be very small. But I know from my personal service with all of the members of this subcommittee that they are interested in trying to establish in every way possible the ultimate fairness of the Government in dealing with land acquisition in the Capital area.

I am here today because of the request for funding in two allotments of $2 million and $1,300,000 to the National Capital Planning Commission, which is a result of the $15,500,000 authorization and supplemental appropriations which will be asked for the John F. Kennedy Center for the Performing Arts.

The decision to properly make this the memorial to our late and beloved President Kennedy has undoubtedly changed the picture for many small businesses that are in this area where the cultural Center is to be located. It means that instead of waiting for several years until the donations from private citizens met the cost of acquisition and the participation in this beautiful cultural Center, that with the Government's participation now it will be speeded up, and quite properly so.

### SMALL BUSINESSES RELOCATION

I am here supporting the requests for the appropriations. But in doing so I would like to point out that it will present a business hazard to many small businesses that have been operating in this area, and until the decision to participate to a greater extent in the cost of this memorial by the Government, these businesses felt they had a longer time to contemplate their moving.

Located in his area is the National Historical Wax Museum, with 20 to 25 persons regularly employed.

The Riverside Carwash with some 10 to 25 regularly employed.

The Diplomat Garage with 6 persons.

The Arlington Claggett Memorial with some 4 persons.
The Intown Liquor, Inc., with 4 persons.
And the Washington Diner, with two persons.
Plus a number in other allocations that come in with the $1,300,000 request of the Watergate, which averages about 110 employees.

### TIME BEFORE EVICTION

As I say, I support the funds for this. I believe that the property should be acquired as rapidly as possible. And when the planning, design, and construction of this edifice require it, these people then should be given their notices to move. What I would deeply appreciate and what I would like to ask of this committee is that as they make the report on the funding of this money that they make it crystal clear to the authorities that the present tenants who enjoy lease rights and have no damage claims that would normally be paid to them be permitted to remain in their areas for the longest possible time before eviction, consistent with the Government's need for the actual possession of the land for construction purposes.

### WAX MUSEUM

Many of these people have been searching for new areas. The Wax Museum particularly is operated by a very dear friend of mine, a former Oklahoman, Mr. Frank L. Dennis, who is president of it. He thought they had secured a site in the Southwest development area. But then when the plans were changed, as they often are, and the highways were rearranged in the shuffling of the sites, they found that the parking which was necessary for the continuation of the museum had been eliminated, and it was impossible to locate over there.

Other people will have a hard time trying to find a location, also.

### TENANTS REMAIN UNTIL LAND ACTUALLY NEEDED

So I would deeply appreciate the committee considering writing into the report or having an understanding when the authorities appear that the tenants will be allowed to remain on their property until the land is actually needed for the construction project. This will be in keeping with the colloquy between Senator McNamara and me during which we referred to the following portion of the report of the House Committee on Public Works accompanying the National Cultural Center bill in 1958:

> The committee believes it would be advantageous to the Government if the present lessees of the private property to be acquired are permitted to continue their tenancies until such time as plans have been approved and funds are made available for the actual construction of the National Cultural Center.

I would like to ask that there be included in the record the colloquy that was had with Senator McNamara on Friday, August 22, 1958, from the Congressional Record.

(The colloquy referred to follows:)

> Mr. MCNAMARA. The Senator from Oklahoma is absolutely correct about the 5-year period. However, I wish to point out that the Commission now has enough money on hand to purchase the slightly more than 1 acre which is privately held. The remainder of the property already belongs to the Government. Therefore the purchase may be made at any time.

Mr. MONRONEY. The point about which I was asking the Senator was whether the tenants having small businesses—I have reference to the historic gallery, the waxworks—will be permitted to continue in that location as a lessor from the Government until such time as the property is actually needed for the construction of the Cultural Arts Center.

Mr. MCNAMARA. As I understood the action of the committee, it was that the tenants until such time as the property was actually needed; and, of course, that would involve, as the Senator from Oklahoma points out, raising the necessary funds to proceed with the project. However, I would not encourage the tenants to rely too much on that, because there is an indication that the money will be raised rapidly.

But there is no reason in the world why the tenants should not remain there. They might become tenants of the U.S. Government and continue as such on a month-to-month basis.

Mr. MONRONEY. Until the contractors are ready to go to work, and the land is needed for the actual construction, the tenants would prefer to remain there, if the property were to remain idle, until such time as construction begins. If it is the opinion of the Senator from Michigan that that will be permitted under the bill, I deeply appreciate his courtesy in extending this information to me at this later time.

Mr. MCNAMARA. That is definitely my understanding. I am sure the situation will continue in the manner in which the Senator has outlined.

LENGTH OF LEASES

Senator BIBLE. I have only one question. It may be that these tenants to whom the Senator from Oklahoma referred might possibly be appearing before this committee personally—I don't know whether they were or not—but I think it might be helpful to this committee if it could be supplied to the committee either by you or them, the length of time that these leases have to run. I am in complete sympathy with what you say. I think it is one of the toughest things in Government to disrupt businesses and private individuals, and I think we should do everything we can to protect them, consistent with their obligation to go ahead with the Cultural Center.

I don't know whether you have the length of the leases.

Senator MONRONEY. I think they are abrogated, Mr. Chairman, and Senator Bible, when the Government decides for its own purposes it needs the land. I am not objecting to that, I am merely pleading that until they actually go to work on the plot, then these tenants should be allowed to remain if they desire to do so.

Senator BIBLE. I understand the point that you are making.

Senator MONRONEY. The lease of the museum would run to 1967, but there is a 30-day clause, you see, for the termination in case it is desired by the Government.

ASSISTANCE TO TENANTS

Senator BIBLE. I have great sympathy for the position you make, and I would certainly think the Government would do everything they can to help these tenants consistent with the objective of a cultural center.

Senator MONRONEY. Sometimes we have seen the land cleared out far in advance of when the land is needed for construction. If we can have this time, it will be appreciated.

Chairman HAYDEN. Senator Aiken.

## STATEMENT OF HON. GEORGE D. AIKEN, U.S. SENATOR FROM THE STATE OF VERMONT

### National Maple Production Research Center

Senator AIKEN. Mr. Chairman, I come before your subcommittee this morning to suggest the appropriation of $180,000 for the establishment of a National Maple Production Research Center in Burlington, Vt. I regard this appropriation more in the nature of an investment than an expenditure. This project is of national importance to farmers living in some 13 States that produce maple products stretching from Maine to Minnesota and southward to the Appalachians. These States are in order of production volumes: Vermont, New York, Ohio, Pennsylvania, Wisconsin, Michigan, Massachusetts, New Hampshire, Maryland, Maine, Minnesota, Indiana, and West Virginia. If the forest research at Burlington is successful, maple production will not only be accelerated in these 13 producer States, but it may be developed in other States also.

### Maple Sugar Industry

The maple sugar industry has always been a family operation. It is an important annual source of cash income, and many producers are processors as well and sell directly to the public. This small but important industry needs technological development. With our national income rapidly expanding, new and wider markets for maple products are unlimited. In good years our maple people are producing about one and a half million gallons annually with a wholesale value of about $7 million and a retail value of twice that amount. With stepped up research these figures can be doubled or even tripled in a fairly short time.

Much progress has been made in the research Forest Service is now conducting, but by establishing a full-scale research center the time needed to produce prospective results can be cut in half.

### Support for the Center

In support of my request, I submit the following for the record: (1) A description of the present research of program at Burlington; (2) a letter from the Forest Service Chief explaining how this additional money could be effectively used; (3) letters, statements, and telegrams endorsing this project from the National Maple Council, the Vermont Maple Industry Council, the Vermont Sugar Makers Association, the New York State Maple Products Association, the Geauga County (Ohio) Maple Festival Board, the dean of the College of Agriculture, University of Vermont, the New Hampshire Maple Producers Association, the Maine Sugar Makers Association, and the Cornell University Department of Conservation.

### Interest of Other States

I know that the other States are also interested, because I have had men in my office from as far away as Wisconsin to discuss this situation.

So I will submit these documents to you and not take up any more of your time.

(The documents referred to follow:)

MAPLE SIRUP RESEARCH

FEBRUARY 19, 1964.

Mr. EDWARD P. CLIFF,
*Chief, Forest Service,*
*Department of Agriculture, Washington, D.C.*

DEAR ED: I understand that all of the research work now being conducted by the Forest Service in the field of improved maple production is concentrated at the University of Vermont in Burlington where, I believe, you have five persons at work seeking ways to improve the yield per tree, tapping efficiency and other related production and management problems.

In this connection I am in receipt of the enclosed copy of a resolution adopted this month by the Vermont Maple Industry Council requesting the establishment of a national center for intensive maple production research. I also understand that if such a center should be established, the logical place would be Burlington in view of the work already in progress there.

I have been working with our maple people on the related problems of production and marketing techniques and believe that every reasonable effort possible should be made to help this industry in achieving greater efficiency. I would like to have your evaluation of such a proposal in line with the enclosed resolution. As the Interior Appropriations Subcommittee is now going into this and moving rapidly, I would like your reply as soon as possible.

Best regards.

Sincerely yours,

GEORGE D. AIKEN.

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U.S. DEPARTMENT OF AGRICULTURE,
FOREST SERVICE,
*Washington, D.C., February 25, 1964.*

Hon. GEORGE D. AIKEN,
*U.S. Senate.*

DEAR SENATOR AIKEN: This is in reply to your letter of February 19 requesting our evaluation of a proposal by the Vermont Maple Industry Council for intensified research on maple sap production at Burlington, Vt.

Your information on our present program in maple production research is essentially correct. We are seeking ways to improve the yield per tree and to decrease production costs per gallon of sirup. With our present staff, however, we have not been able to work intensively toward developing techniques and systems for extraction and collection, nor toward developing the combinations of practices which will net the highest total profit per acre from sugarbush management.

The major effort to date has been in the field of improving yields per tree through selection and breeding of trees with high sap yield and sweet sap. We are progressing toward this goal at a gratifying rate, with excellent cooperation from agencies in Vermont, Maine, New Hampshire, and New York.

It appears that only a modest proportion of the present effort at Burlington could be wisely diverted from tree improvement research to intensify extraction and collection studies of the type suggested. If tree improvement research is interrupted the excellent cooperative effort in locating and selecting high sugar-yielders would probably lose its impetus, and be extremely difficult to reactivate.

Our short-range plans do call for intensified research on cheaper and better methods for sap extraction and collection and for sugarbush management at Burlington. A regional center, located at Burlington where we can continue a highly successful coordinated program with the university, would serve as a focal point to encourage and coordinate research by the universities, agencies, and industries serving the maple products belt.

The fiscal year 1965 budget now before the Congress provides no increase for the research at Burlington. An increase of $180,000, as suggested by the Vermont Maple Industry Council, would enable staffing at a level to provide for intensified research on extraction and collection of sap and sugarbush management problems. Our short-range plans call for an expansion of about this

magnitude through the regular budgetary procedure when the overall financial situation permits.

Thank you for the opportunity to comment on this problem.

Sincerely yours,

EDWARD P. CLIFF, *Chief.*
By CLARE HENDEE.

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THE NEED FOR RESEARCH IN MAPLE SAP AND SIRUP PRODUCTION

The production and sale of maple sirup has been an important contributor to the rural economy of several Northeastern States. The large amount of labor necessary to collect sap, and the high cost of concentration, are among the factors which have led to a very serious decline in the production. The industry now finds itself unable to compete with the imported product on a profitable basis. This trend could be reversed if improved practices in the production and handling of maple sap led to more efficient sirup production. We believe that more research is necessary to provide these improved methods with the speed necessary to save the industry from extinction.

We are convinced that this immediate need for answers requires a national center for intensified research on these maple production problems. To this end, we recommend the additional appropriation of $180,000 to the U.S. Forest Service for research on improved production methods and related management studies. This additional appropriation would allow an intensification of the work presently being carried on in cooperation with the University of Vermont.

VERMONT MAPLE INDUSTRY COUNCIL.

FEBRUARY 12, 1964.

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BURLINGTON, VT., *February 25, 1964.*

A RESEARCH PROGRAM IN MAPLE SAP PRODUCTION

A research effort to meet the needs of maple producers could be grouped into three broad areas: (1) problems of extraction and collection to lower production costs, (2) increasing sugar yield to lower production costs, and (3) problems of combining sap production with timber management for highest total per-acre income.

1. *Extraction and collection.*—The major objective would be to develop techniques and systems with minimum labor costs per gallon of sirup produced. Examples of research needed include cost studies of taphole preparation methods, methods, development of cheaper mechanized systems of tapping, time of tapping, placement of tapholes to minimize costs, and development of prescriptions to determine sugar content and rate of sap flow to eliminate submarginal trees for tapping. Comparison of costs of various collection methods, systems, and intensities for various sugarbush conditions should be made. Other examples are development of better and more acceptable methods of bacteria and fungus control in tapholes to prolong flow, and studies of the economic feasibility of late fall and winter tapping. Sap flow is related to the formation and movement of sugars within the tree as well as to environmental factors in the sugarbush. Additional research is needed on factors governing the formation and quality of sap, rate of flow, and sugar content.

2. *Increasing sugar yield.*—Sugar maple producers have known generally of sweet trees for over a century. Recent research has shown a wide and consistent variation among trees in the relative sugar content of their sap, rates of flow, and the length of period during which they flow. The long-term objective of this work would be to reduce sap handling and processing costs through development of high-yielding trees. Immediate studies are needed to determine whether sap flow and sugar content at other times of the year could be correlated with that obtained during the regular tapping season, thus speeding up the search for trees of high sap yield and sugar content. Also included would be studies to increase growth rate, and determine if some means such as fertilizing can increase sap and sugar production. Methods are needed to evaluate sugar yields from young saplings so that breeding programs can be condensed into a relatively short number of years. Dependable seeding or planting methods are needed before a tree improvement program can be of value to the maple sap producer, or even before

adequate inheritance tests can be made. Thus, research at Burlington should develop successful methods for planting sugar maple.

3. *Combining sap production with timber management.*—Studies are needed to show the particular tapping and timber culture practices that will result in the highest total profit from sugarbush management. Special problems include:

(*a*) Determining the effect of cultural practices on the quality and yield of both sap and wood products. These practices include the control of nutrition, stand density, and other stand factors.

(*b*) Developing prescriptions for minimizing reduction of timber quality from sugaring operations.

(*c*) Finding methods for fitting maple sap production into the continuous management of maple stands for valuable timber products.

The major effort in the present Federal program of research underway at Burlington has been in the field of increasing sugar yield of individual trees so as to lower production costs per gallon. Enough has now been learned about the mechanisms of controlled breeding and means of vegetative propagation to permit undertaking other studies. Selections among high yielding trees are now being made with the help of the Northeastern Tree Improvement Committee and its cooperating agencies in Maine, New Hampshire, Vermont, and New York.

Current maple tree improvement research at Burlington includes developing the scientific basis for controlled breeding of sugar maple, selection and evaluation of superior sugar-producing strains, and inheritance studies of sugar maple selected for sugar content in the sap. Seeding and planting studies include research on storage and handling of maple seed, production of healthy nursery seedlings, site preparation, planting methods, and vegetative propagation.

It appears that only a modest proportion of the present Federal effort at Burlington could wisely be diverted from tree improvement research to extraction and collection studies. If tree improvement research is interrupted the excellent cooperative effort in locating and selecting high sugar yielders would probably lose its impetus, and be extremely difficult to reactivate.

A limited amount of research in maple sap production is underway at present in the Northeastern and North-Central United States. Work at Michigan State University has emphasized studies on the effects and control of microorganizms in tapholes. The Vermont Agricultural Experiment Station, the leader in maple sugaring research for many years, has had an active program on the physiology of sap flow, and other research that has led to improved techniques. There is no unified or broad-scale research effort, however, which shows early promise of raising the efficiency of sap extraction and collection.

Intensifying and expanding the research work at Burlington, working in cooperation with the Vermont Agricultural Experiment Station, would not be a duplication of any research work done elsewhere.

(Above material prepared by Forest Service, University of Vermont, and Vermont Maple Council personnel working on the project.)

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GREENSBORO, VT., *February 26, 1964.*

Hon. GEORGE D. AIKEN,
*U.S. Senate, Senate Office Building,*
*Washington, D.C.*

DEAR SENATOR AIKEN: At the February 25, 1964, meeting of the executive committee on the Vermont Maple Sugar Makers Association, Inc., it was voted to favor any means that would substantially increase research into the production of maple sap and into other maple production problems with the primary aim of reducing these costs of production.

We feel that this would be one major way in which we could attack the present problem of cheaper Canadian sirup. There also exists, as you know, a tremendous number of tappable trees that possibly would be used if the economics of maple production were more favorable, thereby enhancing the economy of Vermont.

We would appreciate any suggestions or aid you could give us in trying to get an enlarged research program established in Vermont.

Very truly yours,

MARGARET A. IGLEHEART, *Secretary.*

SIDNEY, N.Y., *March 2, 1964.*

Senator GEORGE D. AIKEN,
*Senate Office Building, Washington, D.C.:*

In view of severe Canadian competition in pure maple syrup we request you strongly support bill to increase research funds to Forest Service. Their work on developing sweeter sugar maples and sugar bush management would put northeastern sugar bush operators in a more favorable situation.

CHARLES F. HAGER,
*Secretary, New York State Maple Products Association.*
LLOYD H. SIPPLE,
*Director, National Maple Syrup Council.*

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BURTON, OHIO, *March 3, 1964.*

Senator GEORGE D. AIKEN,
*Senate Office Building, Washington, D.C.:*

We in Ohio strongly urge that the request for additional funds for maple research to reduce costs of tapping and costs of processing sap be added to the budget for the U.S. Forest Service for 1964 and 1965. This will be of considerable benefit to the future of the maple industry.

TURE JOHNSON,
*President, Geauga County Maple Festival Board.*

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THE UNIVERSITY OF VERMONT,
*Burlington, Vt., February 25, 1964.*

Senator GEORGE AIKEN,
*U.S. Senate, Washington, D.C.*

DEAR GEORGE: The Northeast Forest Experiment Station is currently asking for $180,000 of additional Federal Funds to expand the maple research program in Vermont. This sum would be allocated to the present research staff of the Northeast Forest Experiment Station which is located in Burlington.

As you know, this staff is presently working with the members of our forestry and botany departments at the university in the field of maple. The additional funds would be used to supplement projects now underway and to start new research with maple.

We at the university strongly support this request since it will help to strengthen and support the maple industry in Vermont as well as in other maple-producing States.

If you wish additional information, I suggest you contact Mr. Albert G. Snow, Research Forester, Northeast Forest Experiment Station, Federal Building, Box 968, Burlington, Vt.

Best regards.

Sincerely yours,

PAUL R. MILLER, *Dean.*

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ALSTEAD, N.H., *March 3, 1964.*

Hon. GEORGE D. AIKEN,
*Senate Office Building,*
*Washington, D.C.:*

Regarding appropriation for accelerated maple research program, the need is great. Canadian competition, high production cost, labor shortage stifling U.S. maple production. New Hampshire Maple Producers Association goes on record supporting Vermont Maple Council requesting U.S. Foreign Service appropriation for maple research long overdue.

KENNETH E. BASCOM,
*Director, National Maple Syrup Council,*
GORDON H. GOWEN,
*President, New Hampshire Maple Producers Association.*

SKOWHEGAN, MAINE, *March 2, 1964.*

SENATOR GEORGE B. AIKEN,
*Senate Office Building,*
*Washington, D.C.:*

I strongly endorse the bill you are sponsoring to aid the maple industry.

T. R. HARDING,
*Maine Sugar Makers Association.*

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ITHACA, N.Y., *March 3, 1964.*

Hon. GEORGE D. AIKEN,
*The U.S. Senate,*
*Washington, D.C.:*

Strongly urge increased research funds Northeastern Forest Experiment Station for work on sugar maple sweetness management and fertilization to enhance competitive position our 1,800 maple syrup producers respect to Canadian product.

FRED E. WINCH, Jr.,
*Professor of Forestry, Department of Conservation, Cornell.*

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ASHFIELD, MASS., *March 3, 1964.*

Hon. GEORGE D. AIKEN,
*Senate Office Building,*
*Washington, D.C.:*

We are very anxious that an additional appropriation be made this year to the U.S. Forest Service to be used for research in maple tree sap production as a producer as well as an officer in State and national maple associations I feel a modest sum now could produce far-reaching results in an area that has had very little attention from research.

LINWOOD B. LESURE,
*President, National Maple Council.*

### INDIANS AS SUGARMAKERS

Chairman HAYDEN. As a matter of curiosity, did the Indians make maple sugar before the white people came?

Senator AIKEN. Yes; they were the first sugarmakers in America. And they made it, I think, as far south as North Carolina, Tennessee, and Kentucky. The sugar maple grows remarkably well in Louisville where a good share of the street trees are sugar maple. But, of course, those States of Tennessee, Kentucky, North Carolina, and I suppose southwestern Virginia do not produce it commercially any more.

Chairman HAYDEN. Any questions?

### BUDGET ESTIMATE, 1965

Senator BARTLETT. Only one, Senator Aiken, if I might. I am not familiar with this project. Is $180,000 the request for fiscal 1965 for the planning, designing, and start of construction, or is this the total cost? Or what is the total cost?

Senator AIKEN. I understand that they have a program now of about $74,000 a year. The university, I am advised, has made 10 acres available for the research grounds.

### MAPLE SUGAR PRODUCTION

Of course, the sugar maples are all over the mountains around there. But we know that some trees will produce a much higher percentage of sugar than others. We are still producing considerable; not by

primitive methods, but by methods which have been used for the last hundred years. The market is unlimited, of course. And a lot of people who want to buy maple sirup don't know how to get it. And we find, strange to say, that there are a lot of people that produce it that do not know where to sell it at the best price. So there is a lot of work to be done.

Senator BARTLETT. Does the proposal invite any building, any laboratory? I am not clear on this point.

Senator AIKEN. I expect a laboratory should provided. The 10 acres—it is explained in Ed Cliff's letter here, and that is what I am submitting the documents for, because they go into detail.

Senator BARTLETT. They probably explain it fully, and I will read them with a great deal of interest.

Thank you very much.

Chairman HAYDEN. Thank you for your appearance.

Representative Burton.

## STATEMENT OF HON. LAURENCE J. BURTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF UTAH

### UTAH WILDLIFE CONSERVATION PROJECTS

Mr. BURTON. Mr. Chairman, I have a prepared statement that I would like to submit for the record.

Chairman HAYDEN. That may be done, and you may highlight it.

(The statement referred to follows:)

### BEAR RIVER MIGRATORY BIRD REFUGE ROAD

Mr. Chairman, I appreciate the privilge of appearing before this committee in support of two wildlife conservation projects within the State of Utah, and specifically within my congressional district.

I wish to inform the committee at the outset that only one of these projects is included in the President's budget, but both are projects of great merit.

The first one I want to discuss is the rebuilding of the road known as the Bear River Migratory Bird Refuge Road leading from the bird refuge to Brigham City, Utah. This committee saw the merit in the request just a year ago and the Senate did, in fact, appropriate some $105,000 for rebuilding the road. The funds were lost when the House deleted them in conference.

It is clear that there is no legal responsibility on the Federal Government to provide funds for this purpose because the road is not located on federally owned land. There is, however, a strong moral responsibility on the Federal Government to provide the funds. This moral responsibility arises from the fact that this road is the only access road to the bird refuge, and the great bulk of its use is by Federal employees and persons using the facilities. The Department of the Interior has long recognized this responsibility and moral obligation.

According to the Bureau of Sport Fisheries and Wildlife, over 20,500 people visited the refuge last year. The road has no other purpose than to provide access to the refuge.

The road leading from the refuge to Brigham City is approximately 14 miles in length. The length of road from the refuge boundary to the city is approximately 11½ miles and, in the words of the Department of the Interior Fish and Wildlife Service, it is in "very poor condition." This road needs a new base, and it needs to be widened to 24 feet and surfaced with a 3-inch bituminous top. A bridge is required across Reeder's Canal, and it should be relocated to eliminate a hairpin curve in the road. The total estimated cost of the improvement is $105,000.

The budget does contain a provision for some $12,000 for refurbishing roads within the refuge. This is 1 mile of road from the boundary to the headquarters. Our request for $105,000 is in addition to this $12,000.

The refuge encompasses some 64,000 acres which have, of course, been substantially removed from the tax rolls of Box Elder County, Utah the county in

which the refuge is located. To the best of my information and knowledge, Box Elder only receives $100 in taxes from the area.

The value of the refuge is known to the members of the committee, and there is testimony concerning these facts already in the record, so I will not burden the committee with superfluous information.

### Ouray National Wildlife Refuge

The Ouray National Wildlife Refuge is also located in my congressional district some 26 miles from Vernal, in Uintah County, Utah. The committee is familiar with this refuge and the role it plays in the production of ducks and geese, and the need for additional funds to develop its full potential.

We are requesting the additional sum of $232,400 this year for the following items and facilities:

| | |
|---|---|
| Boundary fencing, 33 miles | $32,400 |
| Additional buildings, headquarters roads and parking, water supply and electric systems | 86,500 |
| Canals, dikes, water control structures, and pumping facilities | 113,500 |
| Total | 232,400 |

The Ouray Refuge was established primarily because of its value in the management of migratory waterfowl. It has excellent potential for the production of both ducks and geese, and will fill an important need in that section of the intermountain West for a resting and feeding area for migrant birds. Primary management objectives are aimed at providing nesting habitat for the Great Basin Canada goose, as well as several species of the dabbling and diving ducks. It is estimated that the area will eventually produce 14,000 ducks and geese annually, and that an estimated peak of 75,000 birds will utilize the area during migration.

Parts of the Ouray Refuge will ultimately provide a fine area for public hunting of waterfowl and upland game birds. This will be of particular value as there are no privately operated or commercial hunting areas in the entire Uintah Basin, and there is only one State area within the immediate sphere of influence of Ouray. Present public hunting opportunities are thus limited, and provision of such opportunity at Ouray will be an important contribution to the public need for this type of recreation.

Other forms of recreation will also be provided at Ouray. These will include picnicking, bird watching, wildlife photography, and general sightseeing. Although the human population density of this general area is relatively low, there is still a need for wildlife-oriented recreation as there is in areas of higher population density. In recognition of this, plans have been formulated to meet this need.

Recreational development at Ouray will include the following:

Provision of a nature display and visitor center in the headquarters administration building to be constructed.

Construction of a display pond in the headquarters vicinity were representative species of waterfowl will be kept. Such a facility will provide for wildlife observation by all age groups, and will be beneficial to hunters as a place where waterfowl identification can be studied. This is particularly important with the present need for species management of waterfowl.

A tour road will be developed to provide opportunity for amateur bird watchers, serious ornithologists, and the general public to observe the variety of birds that can be found in the Sheppard Bottom area of this refuge.

Incorporated in this tour road and scenic drive will be lookout points where picnic facilities will also be provided.

The balance of the cost of the program, based on the master plan, is for the sum of $819,600. The Government has already expended large amounts of money on this project, and I respectfully request that the additional funds required to move ahead with it be included in the Interior appropriations bill.

Mr. Chairman, may I conclude these remarks by concurring in the statement submitted by Senator Bennett, requesting additional funds for the watershed research program of the Forest Service at Logan, Utah. This is another valuable and worthwhile program in Utah, and I want to be associated in support of the request.

BEAR RIVER BIRD REFUGE ROAD

Mr. BURTON. Thank you, sir.

I am sure you are familiar with this story; you have probably already heard it from Senator Moss and Senator Bennett. I appeared before your committee last year on the matter of the road to the Bear River Bird Refuge near Brigham City. To put it in a nutshell, this road is about 14 miles long, and about 11 miles of it is on private land and about 3 miles of it is in the refuge on Federal land. But the point of the matter is, that this road only services the bird refuge. The land going to the refuge produces only about a hundred dollars a year in tax benefits to the county.

The refuge itself occupies 64,000 acres of land which is, of course, removed from the tax rolls.

There were more than 20,000 people last year that used the road to go out and look at the birds. But it is primarily used really for the Federal employees to get out to the refuge itself.

Now, it is estimated that it will take about $105,000 to hard surface the road and widen it and to put in a bridge that goes across one of the canals. And I certainly have no complaint about your committee, Mr. Chairman, because you put the money in last year, and the House deleted it. If you would be kind enough to give us the consideration again this year I will take up a labor with the other body.

OURAY NATIONAL WILDLIFE REFUGE

Now, the second matter is with the Ouray National Wildlife Refuge, which is in Uintah County, also in my district, about 26 miles from Vernal, Utah.

This is an area which has great potential for the production of wildfowl. It is estimated that it can produce when it is fully developed 14,000 birds annually. And there are something like 75,000 birds that will utilize the area during migration. And I know that all of us from the West are interested in sports and hunting and are fully aware of the duck shortage we have.

This will be a step in the right direction to provide us with some more ducks, and some more wildfowl in addition to providing an available recreation facility.

In short, Mr. Chairman, we are requesting that you include an additional $232,000 for the purpose of building 33 miles of boundary fencing, building a few additional buildings, headquarters road, parking, water supplies, canals, and dikes. I would appreciate it, and I know the sportsman of the West would appreciate it, too.

That is all I have to say, Mr. Chairman. I appreciate the opportunity to appear before your distinguished committee.

BUDGET ESTIMATE

Chairman HAYDEN. Is there a budget estimate for this last item?

Mr. BURTON. This last item is the budget estimate. But neither of the two items is included in the budget in sufficient amounts. The Refuge road is not included at all, and the Ouray figure of $115,000 is $232,000 short of the amount needed.

Chairman HAYDEN. Senator Bible.

Senator BIBLE. No questions. I just want to be very clear, both of your requests are unbudgeted items?

Mr BURTON. Yes sir.

Senator BARTLETT. How large is Ouray?

Mr. BURTON. If you would like me to get that for the record I would be happy to do it.

Senator BARTLETT. Don't bother.

Chairman HAYDEN. Thank you very much.

Senator Allott.

## STATEMENT OF HON. GORDON ALLOTT, U.S. SENATOR FROM THE STATE OF COLORADO

COLORADO STATE UNIVERSITY OFFICE-LABORATORY, FORT COLLINS, COLO.

Senator ALLOTT. Mr. Chairman and members of the committee, I can read my statement in 2 or 3 minutes, and I think that is the fastest way to do it.

Last year I presented to your committee a justification statement and supporting letters from W. E. Morgan, president, Colorado State University, and Edward P. Cliff, Chief of the Forest Service, for the construction of a headquarters office-laboratory for the Rocky Mountain Forest and Range Experiment Station to be built on the campus of Colorado State University at Fort Collins, Colo.

### ESTIMATED COST OF FACILITY

It was estimated that this facility, which is part of a national forest research program, would cost approximately $1.5 million. And this is a part of the national forestry research program.

As a result of the deliberation, approval, and support of your committee, funds were added to the research item of the Forest Service, appropriation for fiscal year 1964 for the planning of several research laboratories, including the headquarters office-laboratory at Fort Collins, Colo. My recollection is that this was $179,000.

### SCHEDULE OF CONSTRUCTION

The preparation of design and specifications for this headquarters office-laboratory at Fort Collins are well underway. I am informed that plans and specifications will be ready for bidding by, and possibly before, December 1 of this year. This would provide plenty of time to award a construction contract so that actual building could begin not later than next January.

This schedule would enable the building to be put under roof and enclosed well before the following winter. To meet this schedule it is essential that provision for construction funds in the amount of $1.5 million, less planning funds made available last year, $179,000 be added to the research item of the Forest Service, for fiscal year 1965.

### NEED FOR FACILITY

The need for this headquarters office-laboratory facility, as I outlined it to the committee last year, is even more critical than before. Another year has elapsed, and the Colorado State University enrollment has again exceeded earlier estimates; thus the university space now being used by the U.S. Forest Service is needed most urgently. Moreover, laboratory facilities for Forest Service scientists are practically nonexistent. However, the university has set aside campus land for the building without cost to the Government, and utilities and services are being made available for this facility.

The research for which the building is needed is also becoming more important almost daily, as our ever-increasing population requires more water, timber, forage, and recreation from our forest resources.

I most respectfully urge that full and favorable consideration be given by the committee to this request.

Chairman HAYDEN. Thank you for your statement.

COST AND STATUS OF CONSTRUCTION

Senator BIBLE. For my information, the overall project is $1.5 million?

Senator ALLOTT. Yes.

Senator BIBLE. And the planning and design money which has been allowed to date is what?

Senator ALLOTT. $179,000.

Senator BIBLE. So we have about $1.3 million to go?

Senator ALLOTT. We are talking about $1.3 million.

Senator BIBLE. And you say that this would be ready to go to bid in December of this year, approximately?

Senator ALLOTT. The designs, the architectural work and everything will be done by that time.

Senator BIBLE. And what would be the construction period on $1.3 million? Would that be completed within the fiscal 1965?

Senator ALLOTT. President Morgan informs me that if they could get this let by January——

Senator BIBLE. January 1965?

Senator ALLOTT. January 1965—that they would be able to get this building up, or substantially completed, so that they could move students into the buildings which are now being occupied by this work.

In other words, I would say roughly 7 or 8 months, in 1965, in the fall of 1965.

NEED FOR FACILITY

Senator BIBLE. The thrust of your argument is, since you have got the $179,000 for planning and designing and you are ready to go, the sooner you go the better, because you have got a crying need, and there is no use of deferment?

Senator ALLOTT. That is exactly it, you have put your finger on it.

Senator BIBLE. Thank you, very much.

Senator BARTLETT. No questions.

Chairman HAYDEN. Thank you for your appearance.

I have received a number of communications from Members of Congress and statements by Members which I will insert in the record at this point.

(The material referred to follows:)

LETTER FROM SENATORS SALTONSTALL AND KENNEDY CONCERNING FUNDS FOR LAND ACQUISITIONS AT THE CAPE COD NATIONAL SEASHORE

U.S. SENATE,
COMMITTEE ON APPROPRIATIONS,
*March 5, 1964.*

HON. CARL HAYDEN,
*Chairman, Appropriations Committee,*
*1235 Senate Office Building, Washington, D.C.*

MY DEAR MR. CHAIRMAN: We are very much concerned that the budget submitted by the Department of the Interior contains no additional moneys for land acquisitions for the Cape Cod National Seashore.

In a recent letter it was pointed out that available land acquisition funds for the Cape Cod National Seashore will most likely be used up by the end of this

fiscal year. We hope that consideration can be given to this problem so that the acquisition program of the Cape Cod National Seashore which has progressed so well to date may continue.

Sincerely,

LEVERETT SALTONSTALL,
*U.S. Senator.*
EDWARD M. KENNEDY,
*U.S. Senator.*

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## BUDGET ITEMS AFFECTING MONTANA

### STATEMENT BY SENATOR LEE METCALF

MARCH 5, 1964.

*Senate Appropriations Subcommittee on Interior and Related Agencies:*

Mr. Chairman, Senator Mansfield has gone over my statement and asks that it also be considered his. He may, as a member of your subcommittee, wish to elaborate on some of the items I shall mention.

With your permission I shall insert my entire testimony, some letters I have received, and a newspaper article, in the hearing record, and comment on some items of particular interest.

### FOREST SERVICE

I welcome this opportunity to discuss the details of the Forest Service 1965 budget proposals.

First, while there are minor increases, this budget fails to provide the sustained buildup needed in the development of the national forests as outlined in the program submitted to Congress by President Kennedy in September 1961. This important resource development program has been lagging, and next year's budget provides an insufficient amount to put it on schedule. Timber resource activities lag furthest behind.

If the multiple-use development of these valuable national forest properties is to increase, then there must be coordinated budgetary attention given to all of our related forest resources. Attention must be given to recreation, wildlife, soil, and water management, particularly range improvement, and land adjustment functions in addition to timber resources. An additional $15 to $20 million for these purposes would help considerably in bringing the development program into balance.

Even in an economy budget year, such as this one, I am convinced that the additional funds would be a prudent investment. The fact that forested areas of this country tend in a major degree to coincide with areas of low rural income and high unemployment lends weight to the need for additional budgetary consideration at this time. The national forest program is in complete accord with the objectives of President Johnson's new economic policies.

The increase in the recreation use of the national forests, from 113 million visits in 1962 to about 125 million in 1963, illustrates the attraction of these public properties and the corresponding increase in dollars which visitors bring into these rural areas.

I hope that this committee will be able to give increased impetus to this program.

### STATE AND PRIVATE FORESTRY

I am pleased to note that there is before this committee for consideration a $1 million increase for the State and private forestry cooperative program. Over the years, these programs have not moved ahead as rapidly as have other forestry programs. The increases of $250,000 for cooperative forest fire control; $500,000 for forest management and processing; and $250,000 for general forestry assistance, are very modest.

I am sure that larger amounts can be justified when we consider their contribution to the national program. For example, the fire protection covers about 440 million acres of forest land and nonforested watersheds in 49 States. These State and private forest lands produce more than 80 percent of all of our forest products and play a key role in the Nation's economy.

The provision of additional service foresters and increased technical assistance to small private woodland owners and small timber producers is aimed at those holdings where a higher level of forest management is most needed. It gives the type of assistance now lacking in many areas. Again, it ties in with the efforts

to assist the many distressed rural areas. Much of the rural area development must come from a greater productivity and use of the forests and their related resources. Since the cooperative forestry funds are matched with State funds, such appropriations have the advantage of bringing an equivalent amount of local cost-sharing funds into the program.

### Forestry Sciences Laboratory, Missoula, Mont.

A laboratory estimated to cost $400,000 is needed at Missoula for research on the silviculture of western larch and Engelmann spruce, and the management of habitat for wildlife. Some phases of this research are underway, but lack of specialized facilities reduces opportunities for fully effective investigation. Modern research facilities would permit a stronger attack on the problems being studied and would hasten results.

Engelmann spruce and western larch reach their best development in the Missoula area. The timber industry in this area is to a large degree dependent on these species for raw material. Volumes available for cutting under sustained yield could be stepped up materially if delays now experienced in regeneration after harvest could be eliminated or sharply reduced. Knowledge of growth requirements under management, and effective cultural techniques also would add to the efficient use of growing stock. The proposed laboratory would speed the research necessary to accomplish these improvements in management.

Modern research facilities also would aid in obtaining the knowledge basic to improving the habitat of wildlife. Winter range for deer and elk is critical in parts of the region. Information is needed about growth requirements of food and cover plants, their response to different levels and patterns of use, and practices that add to the carrying capacity for sustained production. No laboratory facilities are now available for use in supplementing field studies of these questions. Facilities for this purpose would be included in the proposed construction.

Montana State University has made available a site for the laboratory on their campus. The location has the advantage of convenient library facilities and close cooperation with supporting scientific departments. A planned new building for the forestry school would be close by.

Architectural and engineering plans for the proposed Laboratory are now being developed with funds appropriated to the Forest Service for this purpose.

### Forest Fire Research, Missoula, Mont.

Work now underway at the Missoula Forest Fire Laboratory shows great promise for developing new techniques to fight forest fires. How soon this promise can become reality depends on how quickly research will be able to provide the bases for operating practice. In the meantime, fires disasters do not wait. The Sleeping Chile Fire on the Bitterroot National in Montana burned 28,000 acres in 4 days in August 1961. It cost $1,931,070 to fight this one fire. But the loss was many times that amount; for fire damage will hamper productive management of 43 square miles of forest land for at least 20 years. Potentials for these fire disasters appear to be on the increase. Typhoon Freida in October of 1962 blew down more than 12 billion board feet of timber on the Pacific coast along with as much more unmerchantable material. This striking fuel hazard will face firefighters for at least another 20 years.

The Forest Fire Laboratory, completed in 1960, is still not fully staffed. The importance of unsolved fire prevention and control problems justified a full staff of scientists and a fullscale effort to produce and apply the needed research results. This could be done by increasing the current program by $375,000. This amount not only would step up the critically needed research, it also would provide for more rapid application of research results by Federal, State, and private forest landowners and protection agencies.

Because the laboratory offers for the first time the opportunity to bring forest fires into the laboratory under completely controlled conditions, many new things need to be tried. Some are underway. New studies of actual rate of spread of wildfires can be made with infrared mapping equipment, then related to the behavior of laboratory fire in wind tunnels. Complete information can now be collected on the physical and chemical characteristics of common forest fuels of the West and how these affect fire behavior and the difficulty of fire control. Now techniques are needed in developing better predictions of fire behavior as it is determined by weather, fuels, and topography. This will reinforce the new national system of fire danger ratings.

Several promising lines of research already underway need to be expanded and speeded up so they can start paying full dividends. These dividends will be: more effective fire control methods, less firefighting costs and, best of all, reduced fire damage. Project Skyfire, which has been unraveling the mysteries of fire-setting lightning storms and looking for ways to reduce the number of lightning fires, has already demonstrated a potential for producing the new information and techniques needed by firefighters. It should be expanded. A completely new concept of fire detection is now beyond the exploratory phases. It promises a new electronic system to locate lightning discharge areas and a new infrared heat detection system to locate small fires at night and through smoke and haze. Added to these are the potential reductions in the number of "too hot to handle" fires by controlled use of fire to reduce hazardous fuels and better use of chemical retardants and air attack to keep runaway fires from getting big. The additional funds proposed would help put each of these developments to work at the task of reducing forest fire losses.

### FOREST ENGINEERING RESEARCH

An additional $200,000 is needed in the forest engineering research program at Bozeman, Mont., to develop new methods of harvesting small diameter timber from steep mountain slopes. The lodgepole pine forests of the Rocky Mountains have never yielded their full potential as a raw material source for industry. These forests can best be utilized in a multiproduct process yielding lumber, fiber products, chemicals, and energy. One of the handicaps to the establishment of new or expanded wood-based industries is the relatively high cost of handling small trees. Visionary engineering research to develop greatly improved systems for logging small timber on steep slopes has potential to solve this problem and thereby bring new industry into this region.

Research contemplated under an expanded program would include improvement in the design and pilot testing of transport of wood chips in pipelines, an evaluation of use potential of wood in steam energy production, and analysis and redesign of equipment and methods for harvesting and transporting forest products without danger of damage to valuable watershed values.

## Bureau of Outdoor Recreation

The Bureau of Outdoor Recreation is asking $2,700,000 for fiscal year 1965. Of the amount requested, $1,600,000 is for planning and cooperative services, and $1,100,000 is for coordination, education, and research. The committee is urged to act favorably on this request.

The Bureau would use the $1,600,000 to prepare a national outdoor recreation plan encompassing all aspects of outdoor recreation. Activities of the Federal, State, and local governments as well as private owners would be included. By its assistance to States, the plan would help develop a nationwide effort and aid in the discovery of areas having significant recreation potential.

The $1,100,000 would go toward reviewing proposed budgets, legislation, and operations of more than 20 Federal agencies dealing in the area of outdoor recreation in order to promote a coordinated effort in this field.

It is extremely urgent that we develop as soon as possible a nationwide outdoor recreation plan so that Federal, State, local, and private programs may be coordinated and carried forward without duplication. With the population of the country expected to double by the year 2000, it is obvious that action must be taken now to meet future needs.

The Bureau's program of promoting Federal coordination should be of particular value to the Federal Government. Federal agencies currently are spending more than $300 million a year on outdoor recreation. The Bureau of Outdoor Recreation is to be one point in the Federal structure where all of these expenditures can be analyzed and evaluated. The request of the Bureau is less than 1 percent of the amount spent on outdoor recreation by these other Federal agencies. This is a small enough investment in coordination and efficiency.

## East Glacier Airport

I also wish to call your attention to Senator Mansfield's and my interest in an airport at East Glacier. It is needed to provide airline service to Glacier National Park and vicinity, one of the Nation's top tourist attractions and, needless to say, a bulwark of the Montana economy.

Development of this facility has been held up because the National Park Service has not had sufficient funds with which to participate in the project. All

other participating agencies at the Federal and State levels are prepared to go ahead.

The Federal Aviation Agency has recommended a general aviation airport at East Glacier in its national airport plan.

The Montana Aeronautics Commission has advised the Federal Aviation Agency that it would be interested in acting as sponsor of the airport development at East Glacier under a contribution agreement with the National Park Service, providing the development would be under the Federal-aid airport program, in a manner similar to that being used for the airport development at West Yellowstone, Mont.

We hope that you and your committee will see fit to add an additional $400,000 to the Department of Interior appropriation bill so that construction of this vital airport might commence.

Your past support and consideration of similar matters has been most appreciated.

FISH AND WILDLIFE SERVICE

I want to mention one situation regarding wildlife research which I believe warrants your attention.

Page 26 of the justification for appropriations by the Bureau of Sport Fisheries and Wildlife shows that each of the 12 cooperative fishery units would be provided with an estimated $30,000, for 2 persons. Page 84 of the justification shows that most of the 19 cooperative wildlife research units would receive from $11,700 to $14,000, for the salary of the unit leader.

I have asked several persons engaged in fishery and wildlife research about this disparity in the funding of the two similar programs. I am told that when the cooperative fishery program was set up it provided for a second man to handle much of the administrative detail. This left the leader relatively free to direct research and work with gradute students.

I know that some wildlife research unit leaders have to spend a fair amount of time fundraising. The Wildlife Management Institute contributes $1,000 to each of the units; the State department of fish and game contributes some; and the other expenses are met by the National Science Foundation or National Park Service or perhaps some other group with a particular interest in the work of a particular unit.

All the Federal Government puts into these units is the salary of the unit leader, a few hundred dollars for gas and oil, and, every few years, money for a new car.

I know that this may not be the year to suggest that the Federal Government finance an additional position at each of the 19 wildlife research units, but I believe there is a problem here that should receive some attention from the subcommittee. I would like to suggest that you obtain the Department's views on this matter.

I have noted with interest and approval several line items in the 1965 Department of Interior budget, including the following:

NATIONAL PARK SERVICE

MAINTENANCE AND OPERATION

| | |
|---|---|
| Glacier Park: | |
| Roads and trails | $382,000 |
| Buildings and utilities | 321,200 |
| Yellowstone Park and Big Hole Battlefield: | |
| Roads and trails | 839,200 |
| Buildings and utilities | 672,400 |

CONSTRUCTION

| | |
|---|---|
| Glacier Park Visitor Center, Apgar | $257,400 |
| Yellowstone Park: | |
| Boat docks and related facilities | 350,000 |
| Employee apartments | 141,000 |
| Employee residences | 105,000 |
| Big Hole National Battlefield, utility system | 161,900 |

Park Service work budgeted for 1964–65 includes the improvement of campgrounds, roads, and parking areas at Apgar, Fish Creek, and St. Mary, work on the Camas Creek cutoff, rebuilding part of the Red Lodge-Cooke City Highway, and

an addition to the visitor center and roads and trails at Custer Battlefield National Monument.

Total proposed appropriation for park areas of particular interest to Montanans are Glacier, $2.9 million; Yellowstone, $2.8 million; Big Hole National Battlefield, $240,000; Custer Battlefield National Monument, $175,000.

## Fish and Wildlife Service

### OPERATION OF FISH HATCHERIES

| | |
|---|---|
| Bozeman | $44,100 |
| Creston | 152,300 |
| Ennis | 309,200 |
| Miles City | 39,100 |

### REFUGE OPERATION

| | |
|---|---|
| Benton Lake | $114,600 |
| Bowdoin | 48,800 |
| Charles M. Russell | 254,300 |
| Medicine Lake | 31,000 |
| National Bison Range and Ninepipe | 101,800 |
| Red Rock Lake | 55,100 |

### REFUGE CONSTRUCTION

Charles M. Russell National Wildlife Range, $240,000, for boundary fencing to facilitate grazing administration, waterfowl habitat improvement, construction of residence and service building.

## Public Health Service

### INDIAN HEALTH STATION

| | |
|---|---|
| Wolf Point | $41,200 |

### INDIAN SANITATION FACILITIES

| | |
|---|---|
| Fort Belknap (Beaver Creek), individual water and waste | $45,000 |
| Blackfeet (Babb-St. Mary), individual water and waste | 139,000 |
| Fort Peck (Wolf Point), community and individual water and waste | 200,000 |
| Crow (Pryor), community and individual water and waste | 95,000 |

## Indian Bureau

### WATER SYSTEM

Fort Belknap: $50,000 for construction of a water system to serve both domestic and irrigation needs.

### EDUCATION

Montana State College: $102,440 for extension work among Indians. Through this program, extension agents help Indian families develop and demonstrate improved techniques in home management, farming, and youth training through 4–H clubs, farm and home visits, short courses, tours, bulletins, achievement days, and exhibits.

### IRRIGATION CONSTRUCTION

Crow Reservation: $63,713 to extend 7.9 miles of laterals and control structures.

Fort Peck: $324,788 for continued development of the Wiota (Big Porcupine) and Frazer-Wolf Point (including Little Porcupine) units.

### IRRIGATION REHABILITATION AND BETTERMENT

Blackfeet: $111,484 to rebuild, enlarge, and repair main canal and laterals, Badger Fisher, Birch Creek, and Two Medicine units, repair Two Medicine Reservoir.

### ROADS

Grading and draining 52 miles of road and surfacing 61 miles on the seven Montana reservations and the Wind River Reservation in Wyoming, $1,250,000.

Johnson-O'Malley contract for assistance in the education of Indian children, $100,000.

BUREAU OF LAND MANAGEMENT

Sanitation facilities in recreation areas, $80,000, Madison River and $40,000, Locate Creek (adjoining U.S. 12 in Custer County, between Baker and Miles City).

Soil and moisture conservation work in Montana, $920,000.

FOREST SERVICE

Visitor Center, Quake Lake on the Madison River, $95,000.

SUMMARY OF ADDITIONS TO BUDGET PROPOSED BY SENATOR LEE METCALF

NATIONAL PARK SERVICE

East Glacier Airport, $400,000.

FOREST SERVICE

Forestry Sciences Laboratory, Montana State University, $400,000.

Forest Fire Laboratory, increase current program to complete staff and apply research, $375,000.

Further development of the national forests, $15 million.

Forest engineering research, $200,000.

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(Material referred to in Senator Metcalf's statement follows:)

AIRPORT AT EAST GLACIER PARK, MONT.

GLACIER PARK, INC.,
*Tucson, Ariz., March 4, 1964.*

Hon. CARL HAYDEN,
*U.S. Senate,*
*Senate Office Building, Washington, D.C.*

DEAR SENATOR HAYDEN: This will confirm my interest in the approval and construction of an airport at East Glacier Park, Mont.

This airport will serve Glacier National Park. It has the approval of the National Park Service and has been included by the Federal Aviation Administration in the national airport plan.

A site has been selected and estimates for construction have been made by FAA at the request of the National Park Service. The cost has been set at $1,030,000 for a runway 6,000 feet in length to accommodate commercial aircraft. Fifty-three percent of the construction cost will be through FAA funds and the balance through the National Park Service.

The Montana Aeronautical Commission, a State organization, has agreed to assume the incidents and cost of maintaining the airport after construction.

This airport will provide not only for passenger use to Glacier National Park but will be an invaluable asset in the fighting and prevention of fire as it will provide landing facilities for supplies, equipment, and smoke jumpers in near proximity to Glacier National Park.

This field will also provide emergency and alternate landing facilities for the U.S. Air Force and the Montana Air Guard in the event of National or State emergency. Were the Malmstrom Air Force Base to be crippled by attack, the airport would provide an emergency field.

Glacier National Park, as one of the outstanding scenic attractions of the Nation, requires these airport facilities to make this great park available to air travelers. Its remote location and inadequate public transportation now deter people from visiting the park.

Your assistance in securing an appropriation of $520,000 for the National Park Service for these facilities will be greatly appreciated.

Sincerely yours,

DON HUMMEL, *President.*

FEDERAL AVIATION AGENCY,
CENTRAL REGION,
*Kansas City, Mo., January 2, 1964.*

Hon. LEE METCALF,
*U.S. Senate, Washington, D.C.*

DEAR SENATOR METCALF: This is in reply to your letter of November 18, 1963, to Mr. Halaby regarding the establishment of an airport at East Glacier, Mont.

Development of a general aviation airport at East Glacier is recommended in our national airport plan and is, therefore, eligible for consideration under the Federal-aid airport program. The Montana Aeronautics Commission has advised us that they would be interested in acting as sponsor of the airport development at a site 5 miles northeast of East Glacier under a contribution agreement with the National Park Service, providing the development would be under the Federal-aid airport program, in a manner similar to that being used for the airport development at West Yellowstone, Mont.

Upon request from the East Glacier Park superintendent, we have prepared a preliminary estimate of costs for developing the airport. A copy of this estimate was furnished to the National Park Service, and we understand that they are considering the seeking of legislation to raise the present fund limitation with respect to construction of public airports in the vicinity of national parks.

The Forest Service has expressed interest in an airport at East Glacier if it could accommodate aircraft of the DC–3 and C–46 types. Their principal use would be in the movement of Indian fire crews from Browning. These Indian fire crews are becoming increasingly important in the Forest Service fire suppression organization, and we anticipate substantial use of these crews in the future.

West Coast Airlines has also indicated an interest in the proposed airport for their Great Falls to Kalispell flight providing the Civil Aeronautics Board would approve their application to serve East Glacier.

As you can see, there is presently considerable interest in developing the airport at East Glacier, but to date we do not have a formal request for participation under the Federal-aid airport program. Apparently the proposal is awaiting determination by the National Park Service as to the availability of their funds for such a project.

We appreciate your interest in aviation matters. If we can be of further service to you, please call upon us.

Sincerely yours,

J. M. BEARDSLEE, *Director.*

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U.S. DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
*Washington, D.C., January 28, 1964.*

Hon. LEE METCALF,
*U.S. Senate, Washington, D.C.*

DEAR SENATOR METCALF: This is in response to your inquiry of January 13, in behalf of Mr. Don Hummel, concerning the proposed airport at East Glacier, Mont.

Before the Department of the Interior, acting through the National Park Service, could participate in construction of a new airport at East Glacier, under the act of March 18, 1950, the existing fund authorization therein would have to be adjusted upward by legislation, and funds subsequently appropriated for the purpose. The authorization balance is not sufficient to permit consideration of financing the East Glacier facilities.

The National Park Service is conducting a nationwide survey to determine estimated future requirements for airport facilities in or near national parks. When this survey is completed, it may reveal a need for increased authorization to permit construction of airport facilities in several locations, including East Glacier.

By letter dated September 12, 1963, Mr. Charles A. Lunch, director, Montana Aeronautics Commission, advised Mr. W. B. Pearson, District Airport Engineer, FAA, Helena, Mont., of the interest of the Commission to act as sponsor with regard to maintenance and operation of the completed East Glacier Airport under a contribution agreement with the National Park Service, provided the development would be under the Federal airport program, in a manner similar to the present airport development underway in the vicinity of West Yellowstone, Mont. In the circumstance, it would appear the Commission, rather than the National

Park Service, would make application as sponsor to the FAA for matching Federal funds for the construction of the East Glacier Airport.

We hope the above information will be helpful. Please let us know whenever we can be of assistance.

Sincerely,

JOE E. JENSEN, *Assistant Director.*

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U.S. DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
*Washington D.C., November 29, 1963.*

Hon. LEE METCALF,
*U.S. Senate,*
*Washington, D.C.*

DEAR SENATOR METCALF: Your letter of November 18 requests your office be informed of any recent developments or the current status regarding the establishment of an airport near Glacier National Park, at East Glacier, Mont.

For your ready reference, the act of March 18, 1950 (16 U.S.C., 7a–7e), authorized the Secretary of the Interior, under certain circumstances to develop, or participate in the development of airports in, or in close proximity to, national parks, national monuments, and national recreational areas; and provided further an authorization of not to exceed $2 million to carry out the purpose of the act. The Congress has appropriated about $1,662,000 pursuant to the foregoing.

The 1963 national airport plan supplement proposes the construction of a new airport at East Glacier, Mont., having a runway length of 3,700 feet. However, the Department, acting through the National Park Service, is now considering a suggestion by the Superintendent of Glacier National Park, Mont., in collaboration with the District Airport Engineer (FAA), that the East Glacier development should be for a group III general aviation airport with a 6,000-foot runway, which would accommodate the general public, including charter, large executive, and all other general types of aircraft. It is estimated that construction of this type of airfield would cost approximately $939,670 (exclusive of terminal buildings), of which the FAA would bear approximately 53 percent of the cost and the balance could be furnished by the National Park Service.

By letter of September 12, Mr. Charles A. Lynch, director, Montana Aeronautics Commission, advised Mr. W. R. Pearson, District Airport Engineer, FAA, Helena, Mont., of the interest of the commission to act as sponsor with regard to maintenance and operation of the completed East Glacier airport, under a contribution agreement with the National Park Service, providing the development would be under the Federal airport program, in a manner similar to the present development underway in the vicinity of West Yellowstone, Mont.

Before the Department, acting through the National Park Service, could participate in construction of a new airport at East Glacier, under the act of March 18, 1950, the existing fund authorization would have to be adjusted upward by legislation, and funds subsequently appropriated for the purpose.

The National Park Service is now conducting a survey to determine estimated future requirements for airport facilities in or near the national parks. When this survey is completed, it may reveal a need for increased authorization to permit construction of airport facilities in several locations, including East Glacier.

Your interest in the activities of the National Park Service and especially its participation in the construction of an airport at East Glacier, Mont., near Glacier National Park, is appreciated.

Sincerely yours,

HILLORY A. TOLSON, *Acting Director.*

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INTERMOUNTAIN FOREST AND RANGE EXPERIMENT STATION LABORATORY,
UNIVERSITY OF MONTANA

MISSOULA, MONT., *February 13, 1964.*

Hon. LEE METCALF,
*U.S. Senate,*
*Senate Office Building,*
*Washington, D.C.*

DEAR SENATOR METCALF: Since all our efforts, with your able assistance, toward improving the economy of the lumber industry in Montana by trying to

find some solution to the import problem have so far been fruitless, I have given much thought to other approaches.

One such approach would be the early appropriation of construction funds for the establishment of an Intermountain Forest and Range Experiment Station Laboratory on the campus of the University of Montana in Missoula; planning funds for which I understand have already been appropriated.

This would not, I realize, produce any immediate results but I sincerely believe that if a large part of their efforts were devoted to wood utilization studies it would benefit the entire forest-products industry in the State. I do not mean to imply that other studies in relation to silviculture, range management, etc., should be excluded; but research in utilization should result in new products and assist in combating the economic effects of competition from substitutes and other materials. In fact, from a long-range point of view, I believe expanded research is the only salvation of this industry.

Missoula—being the headquarters for region 1 of the Forest Service, having the Fire Laboratory already here, with the possibilities of cooperative efforts with the university forestry school, and the center of the forest industry—is the ideal location for such a project.

It is my hope that you concur in this opinion and if so, assist in obtaining the necessary construction funds.

Yours very truly,

R. E. SHERIDAN.

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FORESTRY RESEARCH LABORATORY, MONTANA STATE UNIVERSITY

MONTANA STATE UNIVERSITY,
*Missoula, Mont., February 17, 1964.*

Hon. LEE METCALF,
*U.S. Senate, Washington, D.C.*

DEAR LEE: I understand that the appropriation hearings for interior and forestry are being held this week. Two items of special interest to us are: (1) The proposed Forestry Research Laboratory on the Montana State University campus and (2) the amount of the appropriation for forestry research in Montana.

The proposed U.S. Forest Service Research Laboratory will be a great boon to both the university and the Forest Service. We at the university are moving into a rapidly expanding research program in forestry with stronger support from the State and industry as well as new Federal matching funds under the McIntyre-Stennis Act. We are coordinating our program with that of the Forest Service in all fields and we look to this new Laboratory as the focal point for such coordination. The Forest Service will have available to it the full facilities of the university and the staff of the university can work with Forest Service scientists in Service facilities. We hope that funds for the construction of this Laboratory can be made available for the next fiscal year. From a selfish standpoint, we recognize that the authorization of this Laboratory will give impetus to the construction of a new building for the school of forestry in the near future.

The research program of the U.S. Forest Service in Montana needs greater financial support. We are lagging in knowledge of spruce reproduction, management of our important timber species, forest products, marketing, and fire control. In fire control, for example, we have an outstanding Laboratory, thanks to your efforts, but we have not been able to fully capitalize on the facilities because there have not been sufficient funds to fully staff the Laboratory or provide the equipment needed. In all these fields we at the university are closely cooperating with the Forest Service and coordinating our work with theirs. This teamwork is paying off in better research results as well as providing better opportunities for our students. The Forest Service research work is of considerable importance to our program. Many of our graduate students work on Forest Service research projects and this work is a great help in keeping them going. A number of our undergraduates also find work during the summers as well as part time during the school year on Forest Service research projects. This is a mutually advantageous arrangement. We also do some contract research work on Forest Service projects. We regard the Forest Service research program as a great adjunct to our own.

Another item of direct concern to us in forestry research is the amount of the proposed appropriation under the McIntyre-Stennis Act. This is in the Department of Agriculture appropriatons, not Interior and forestry. As you know, the McIntyre-Stennis Act passed in October 1962 received its first appropriation for $1 million this year. It was anticipated that the amount would be increased to $5 million for the next fiscal year. It now appears reasonable that the amount should be increased to at least $3 million to help provide the funds for research

needs. This valuable piece of legislation was strongly supported by industries, agencies, and universities in Montana as well as nationally. It is the basis for increasing the State appropriation for forestry research as well as financial support from industry. Without stronger national support we will not be able to undertake the programs we have proposed. Support from the State and industry may also be reduced. By law the upper limit of funds for this program is about one-half the appropriation for Federal forestry research or about $12 million. I will try and give you additional information on the value of this program in Montana before the hearings are held.

As you know, almost all forestry research in Montana is conducted by the U.S. Forest Service and the university. This pattern is true nationally. While individual industries do carry on some research and contract with us and other schools for some research, they generally have to rely on the Federal Government and the universities for this research. Part of the problem lies in the wide dispersion of the industry into many plants most of them relatively small and not financially able to afford large research departments. Only a few of the largest companies are engaged in any significant amount of research and almost none of these are represented in Montana. While we cannot hope to resolve all of industries' problems through research, the only real hope for working toward long-run solutions lies in research.

We are all sympathetic with the need for economy in the Federal budget. In the face of the proposed cutbacks in this budget many needs of individual States and groups will not be met. However, even without increasing the budget there are sure to be many changes make. In the course of these changes I hope that due consideration will be given to needs such as ours. The total money involved is relatively small but it is of intense interest to us. We feel that in each case the appropriations requested are in the form of investments which will be repaid many times over in the future.

If I can provide you with any additional information in regard to these items, I will be pleased to do so.

Sincerely,

ARNOLD W. BOLLE, *Dean.*

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[The Daily Missoulian, Jan. 26, 1964]

## WOOD REFUSE IS PUT TO WORK

(By A. V. Himsl)

The project is costly, but its twofold purpose, if achieved, will make it worthwhile.

That was the judgment of members of the air pollution committee of the Missoula County Study Group on Pollution following inspection Saturday of six installations in a process of converting residue from lumber manufacture into electricity.

In the process, mill operators will reduce appreciably the burning of wood refuse and the resultant output of smoke and fallout which contributes to the community air pollution problem.

Committee members Saturday inspected the hogging and storage of wood residue at the L. A. Hamilton Lumber Co., the Elk Horn Lumber Co., Intermountain Lumber Co., Missoula White Pine Sash Co., Van-Evan Co., and Waldorf-Hoerner Paper Products Co.

At the mills, the wood residue, which once was merely waste is ground or chopped in hogs into fuel destined for a specially designed boiler at the Waldorf-Hoerner plant. The ground fuel is elevated into bins which in turn empty their burdens into trucks and trailers specifically designed to handle the product.

The hog fuel is transported to the Waldorf-Hoerner mill where the trucks and trailers are emptied by hydraulic jacks into a pit which holds a 2-day supply.

From the pit the fuel is conveyed to the boiler to produce steam for the generation of 3,500 kilovolts of electricity.

The project, which involves an expenditure of more than $1,325,000, does far more than change the site of refuse burning. For combustion in the new Waldorf-Hoerner boiler is virtually complete. The revolutionary design of the bioler, one of a few of its kind in the world, makes possible the burning of fuel in suspension.

No black smoke belches from the Waldorf-Hoerner stack. All that is visible—and barely visible—is a plume slight in volume and light in color. In fact, the smoke is washed before it reaches the stack.

With such efficiency in combustion the burning of wood refuse delivered to the plant reduces the pollution load within Missoula considerably, committee members learned. Area lumber mill operators estimate that tepee burners will be used in the disposal of from only 2 to 10 percent of waste wood.

Mill operators point out, however, that the use of the residue by Waldorf-Hoerner will not eliminate the tepee burners and will not eliminate burning of wood at the mills. The tepees will be pressed into use occasionally to dispose of waste unsuitable for hog fuel, and some burning must continue to fire boilers at the mills.

Waldorf-Hoerner officials report that the hog fuel installation at their plant cost in excess of a million dollars. Trucks and trailers for the operation cost $75,000 and operators of Missoula area lumber mills have spent $250,000 in equipping their plants to participate in the project.

The operation has just started and as yet not all the mills planning participation have completed their installations. Furthermore, Waldorf-Hoerner officials expect to encounter some "bugs" in an uncharted and experimental project.

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## Bureau of Outdoor Recreation and Lobster Fishery Research

### Statement by Senator Thomas J. McIntyre

Mr. Chairman, I am grateful for this opportunity to state my support for the fiscal year 1965 budget request of the Department of the Interior. There are two items which seem to possess special merit.

#### THE BUREAU OF OUTDOOR RECREATION

I support the request for an additional $800,000 requested by the Bureau of Outdoor Recreation. Many conservation, natural resource, recreation, and planning groups in my own State of New Hampshire have stated their praise for this Bureau. It is beginning to bring a degree of order to the diverse programs, budgets, and legislative requests of Federal agencies which engage in the promotion of outdoor recreation. It is setting a high standard of recreation resource planning to which our States may aspire in their own planning and development efforts. New Hampshire has embarked upon a most ambitious State planning project, under the direction of Miss Mary Louise Hancock, which will be more helpful as a result of the work of the Bureau of Outdoor Recreation. The northern New England States are particularly fortunate in having an outstanding potential in outdoor recreation so the cooperation of this Bureau is especially welcome.

#### LOBSTER FISHERY RESEARCH

I should also like to express warm support for efforts to amend the Interior appropriation bill to include some $350,000 for research by the Bureau of Commercial Fisheries on lobsters. I was surprised to learn that little is known about the breeding and development of lobsters in their natural environment. Our States cannot properly exercise their conservation responsibilities unless they know what to expect about the population and life cycle of lobsters. A paper was presented at the recent meetings of the American Association for the Advancement of Science in Cleveland in which the principal investigator had to state that the mechanism by which the lobster frees its eggs to the sea is entirely unknown.

The value of the American lobster fishery has been conservatively estimated at $15 million. In 1961, the fish and game department of my State of New Hampshire issued 51 licenses to fishermen to set 75 traps or more, and 129 licenses for 75 traps or less. This in-shore fishery brings welcome income to residents of our seacoast area. The lobster fisherman of New Hampshire are concerned, and legitimately so, about the impact of offshore trawling on their in-shore fishery. This is only one local problem which the research program of the Bureau of Commercial Fisheries would help to solve, in addition to increasing our fundamental knowledge. Consequently, I hope the subcommittee may appropriate an additional amount for the Bureau of Commercial Fisheries to initiate research in this significant fishery and natural resource.

STATEMENT OF SENATOR HUGH SCOTT

LAMAR NATIONAL FISH HATCHERY, PENNSYLVANIA

The Tylersville unit of the Lamar National Fish Hatchery is located about 5 miles from the main hatchery facilities. This unit occupies about 39.7 acres in Logan Township, Clinton County, and was acquired by purchase in 1931. With purchase of the property, the Government obtained exclusive water rights of Ruhl Springs. These springs flow a minimum of 3,000 gallons per minute at a nearly constant temperature and of ideal quality for fish production.

Since acquisition, it has been possible to develop only minimum facilities until fiscal year 1963. In that year, $200,000 was made available under the accelerated public works program to initiate development of this unit. Most of these funds were allocated to the construction of concrete raceways for production of trout. The balance was used to install necessary water supply and drain lines and to construct a water retaining and intake structure. With these facilities the Tylersville unit will be capable of sustaining an annual production of from 40,000 to 50,000 pounds of trout.

The water supply at this unit can support an annual production of over 100,000 pounds of fish, provided the development of physical facilities is completed. Such production is necessary in order to more adequately meet the need for hatchery-reared fish in the areas stocked by the Lamar and Tylersville units. Trout are stocked in Pennsylvania under a cooperative agreement with the Commonwealth. A large part of the production is utilized in management programs on the Allegheny National Forest, Corps of Engineers reservoirs, Department of Defense, and other Federal agencies. Warm-water species and trout fingerlings are also stocked in farm ponds in parts of New Jersey and New York. At the present time, at least 75 percent of the catchable cold water sport fishery in Pennsylvania is supported by fish stocked from State and National hatcheries.

The following is an itemization including those features required to complete the Tylersville unit into a modern, efficient hatchery capable of producing a large poundage of fish:

| | |
|---|---|
| Funds needed for the program: | |
| First phase: | |
| Purchase additional land (4 acres) and preliminary engineering | $20,000 |
| Hatchery and service building | 155,000 |
| Residences (2) with garages | 40,000 |
| Sewage and domestic water supply (2) | 4,000 |
| Dike, flood protection | 37,000 |
| Total | 256,000 |
| Second phase: | |
| Concrete raceways (2 sets) 500 feet long, 8 feet by 100 feet with water supply and drains | 100,000 |
| Residence with attached garage | 20,000 |
| Sewage and domestic water supply | 2,000 |
| Roads and hard surfacing | 34,000 |
| Landscaping | 6,000 |
| Road, access right-of-way | 2,000 |
| Exterior lighting | 10,000 |
| Fencing | 7,000 |
| Picnic area | 2,000 |
| Equipment | 10,000 |
| Total | 193,000 |
| Total estimated cost of the program | 449,000 |

I trust this committee will see fit to appropriate funds to complete the first phase of the Tylersville project and protect the work which has already been done there, rather than to allow the unit to stand and deteriorate.

## Health Program on Turtle Mountain Indian Reservation

### Statement of Senator Quentin N. Burdick

#### HOSPITAL AT BELCOURT, N. DAK.

Mr. Chairman, I come before this subcommittee today to request financial support for the construction of a new hospital at Belcourt, N. Dak., to serve the Indian people residing on and adjacent to the Turtle Mountain Indian Reservation.

At the present time over 5,500 Indians, primarily of Chippewa and Cree descent, reside on the Turtle Mountain Reservation. The land base that these people occupy is small and totally inadequate to provide a decent living for the people. For the most part, they follow migratory labor which takes them away from the reservation for several months.

This is truly a pocket of poverty; and as such, is reflected in the health status of Indians residing within this environment.

It is to be noted that the leading causes of death in recent years among this group of people are diseases of early infancy, diseases of the heart, accidents, and malignant neoplasms. They suffer from a high rate of pneumonia, influenza, otitis media (representing complications and residuals of respiratory infections). Measles and other common childhood diseases are reported to be in the lead among the reported notifiable illnesses.

The Division of Indian Health, U.S. Public Health Service, bears responsibility for the administration of the Indian health program on the Turtle Mountain Reservation. The primary facility is a hospital that was constructed in 1930 with a recommended bed capacity of 30.

In a survey of the facility, the fire marshal of the State of North Dakota noted that it is hampered by severe safety and fire hazards which should be corrected. For example, the doors to patient's rooms are too small to move patients' beds, and corridors are considered too narrow to meet current standards. It seems incomprehensible that a facility with such hazardous deficiencies should be utilized in this day and age to treat the sick and disabled.

Although the Division of Indian Health has made several improvements to this facility during the past several years in the way of fire escapes and other safety improvements, as well as a new boiler, they advise me that the facility does not lend itself to modernization or expansion in order to meet modern medical care requirements. The need is critical and should be corrected at the earliest possible date.

Perhaps a brief review of usage of the current Belcourt Hospital for the past several years will assist the committee in its consideration of my request. As previously noted, the hospital was originally constructed in 1930 with a recommended bed capacity of 30. This was later increased to 38. The admissions from fiscal years 1961 to 1963 have increased from 1,304 to 1,841, respectively, while the average daily census for the same period increased from 26 to 35 and in March of the 1963 fiscal year, a peak census of 51 was established. The admissions during the current fiscal year have been even greater. The situation reached a critical stage in December 1963, when a peak census of 61 occurred in the hospital. This high census resulted in infants and children being placed in cribs in hallways. In many cases, two and three infants were placed in the same crib. The Indian people and others concerned with their welfare have consistently appealed to my office with the request that I seek approval for the construction of a new hospital of adequate size to serve the population group on this reservation.

In response to an inquiry I made earlier this year, the Division of Indian Health advised me that funds were requested in their fiscal year 1965 budget to plan a new 50-bed hospital to replace the current facility. This request was disapproved by the Bureau of the Budget.

While I realize there is a concerted effort on the part of the executive branch to accomplish economy in each and every agency, I personally feel the need for a new hospital at Turtle Mountain is critical. I can think of no better way to implement the President's war on poverty and disease than to authorize construction of this long-overdue facility.

The Indian people living on the Turtle Mountain Reservation are an economically depressed group and totally dependent upon the Federal Government for provision of adequate health services. The Division of Indian Health cannot be expected to meet its responsibility if they are required to conduct a program from a facility that is considered a fire hazard by the fire marshal of the State of North Dakota, that is obviously too small to serve the population base of approximately

5,500, and that cannot be expanded or modernized to meet modern medical care requirements.

Mr. Chairman, I am hopeful that the foregoing information will prove helpful to you and members of the subcommittee in coming to a decision about the need for a new hospital at the Turtle Mountain Indian Reservation in North Dakota.

## Bureau of Land Management and Bureau of Indian Affairs

### Statement by Senator Clinton P. Anderson

#### soil and moisture conservation programs

Mr. Chairman, I am appearing before your committee to request that you provide some increases in the amount of funds in the Department of the Interior budget for the Bureau of Land Management and Bureau of Indian Affairs soil and moisture conservation programs.

The Bureau of Land Management administers over 177 million acres of land in the Western States. A great deal of this land is intermingled with private, State, Indian, as well as U.S. forest lands. Highly significant is the fact that over 84 percent of these lands are in fair or bad condition. These lands are not contributing their full share toward meeting the conservation objectives of wise land stewardship. The productivity of this acreage, in terms of forage production for livestock and of water yield, directly affects the local economy throughout the States involved. In addition, the production of wildlife, recreation use, timber and woodland production, and other uses contribute much toward the well-being of the local citizens.

Much of the land has deteriorated to the point that present yields are much less than productive potential. Increased capital investments can substantially increase forage production on many ranges and can improve both the quality and quantity of water yield. I am advised that at the present rate of investments drastic reductions in grazing use are needed on many ranges to prevent permanent damage to the resource. Acceleration of the rate of range improvement and rehabilitation will substantially minimize and in many cases eliminate the need for long-term reductions in range use.

Comprehensive rehabilitation projects, set forth under the long-range plan of the Bureau of Land Management, are substantially behind planned schedules. The Bureau has recently established small resource conservation areas which effectively serve as demonstrations of effective resource management and rehabilitation programs and techniques. The expanded programs of other agencies and organizations such as soil conservation districts often require an acceleration of the BLM program on the adjoining or intermixed public land in order to properly treat the watershed, especially in connection with Public Law 566 programs.

The Food and Agriculture Act of 1962 (Public Law 87–703) authorized the Secretary of Agriculture to assist "in developing and carrying out plans for program of land conservation and land utilization * * *." Under the authority of this law the Department of Agriculture has established 10 pilot resource conservation and development projects. These projects are located in areas where the acceleration of current conservation activities plus the use of the new authorities will provide additional economic opportunities to its people. The Department of Agriculture is to provide the leadership in these projects but it is required to work with other Federal agencies (including BLM) owning land in these areas and with State and local agencies and organizations in a position to further such projects. One of these projects has been established in New Mexico and is known as the northern New Mexico resource conservation and development project. Within this project is Federal land under the Bureau of Land Management, national forest land, State land, Indian land, and privately owned lands. The area is a chronically depressed area and the one thing that will do most for the economy of the area is to accelerate the conservation of natural resources and improve farm and rural income and standards of living. It is the purpose of this project to do just that but it cannot be accomplished unless the cooperating Federal agencies have sufficient funds to participate and do the work that must be done on the Federal lands. The State of New Mexico and all of the local soil conservation districts as well as other local agencies and civic organizations are giving excellent cooperation in this project. I assume that this is true in other States where these pilot projects are located.

To my disappointment I find that the budget of the Bureau of Land Management for soil and moisture conservation work is not sufficient to permit the BLM

to carry out its regular program and provide funds required of it to participate in the pilot conservation projects being planned. Unless the Federal agencies participate in the planned projects where Federal land is involved the program will not be really effective. The real secret of success of these pilot projects will be the full cooperation between all Federal and State and local agencies to carry this work forward simultaneously.

The Bureau of Land Management budget for soil and moisture conservation work for fiscal year 1965 is $11,026,000. I do not believe that this is sufficient to permit the BLM to carry forward its regular program and participate in the pilot conservation projects. I therefore urge your committee to consider this matter and increase the funds for soil and moisture work to $15 million.

The Bureau of Indian Affairs is in much the same situation as we find the Bureau of Land Management. Their lands need treatment as badly as do the BLM lands, and they do have lands intermingled in the pilot projects. I find that there is actually a reduction in BIA soil and moisture funds for fiscal year 1965. This reduction will prevent cooperating Indians from continuing to apply conservation measures to their lands at the same rate as they did during the past year. The reduction will result in a severe cut in the technical staff presently engaged in working with the Indian people in bringing about better conservation and use of ther soil and water resources. Tribal participation depends on this technical help and on appropriated funds being available to initiate projects or to match funds which individuals or tribal groups make available for carrying out desirable soil and moisture conservation practices.

Under the reduced soil and moisture conservation budget of the Bureau it could not participate in the small watershed program (Public Law 566) except at a rate of application of practices at about the same level as would be followed on Indian lands in general whether they be in or out of small watershed program areas. With the proposed allocation of funds they certainly would not have funds to participate as they should in the northern New Mexico pilot conservation project. I understand that the Indians have land in some of the other projects and that this would hold true on these projects as well as in New Mexico. Therefore, I urge your committee to increase the soil and moisture conservation funds for the Bureau of Indian Affairs for fiscal year 1965 to $7,500,000. Funds used for this purpose in the past have yielded good dividends in improved range and water supply. I believe that the committee need have no hesitancy in approving this increase.

### NATIONAL FISH HATCHERY ON MESCALERO INDIAN RESERVATION

Mr. Chairman, last year it was my privilege to appear before your committee and request funds for commencing construction of a fish hatchery on the Mescalero Indian Reservation in New Mexico. The history of this project dates back nearly 3 years when it was originally planned as a part of the overall economic development of the reservation. The purpose is to increase tourism by increasing the recreation facilities on the reservation and surrounding area. Before this project was recommended, it was determined by careful study and investigation, testing of waterflow, water quality, and temperature, that this project was feasible and would result in a real economic improvement to the Mescalero Indians. Your committee wisely approved $190,000 to start this project during the 1964 fiscal year, but for some reason no funds were included in the 1965 budget for continuation of this construction. It is hard for me to understand why we should stop this project at this point when it means so much to the Mescaleros who have probably the highest unemployment rate in the Southwest.

The present administration is advocating assistance for economically depressed areas such as this. We should be especially anxious to help people who are trying to help themselves, as the Mescaleros are doing, by furnishing land and water, and providing through various other means several hundred acres of lakes to be used for fishing by the public. They are also making available approximately 30 miles of excellent trout streams for stocking for the public.

The demand for sport fishing in this geographic area currently far exceeds even the capacity of all the proposals of the Mescaleros. This was shown by the statistics from the U.S. Forest Service and the Outdoor Recreation Resources Review Commission, of which I was a member. This current lack of sport fishing is one of the serious detriments to the development of tourism not only on the Mescalero Reservation, but in this whole area.

Mr. Chairman, this development is part of the overall economic development plan for the Mescalero Indians. As the fishing and recreation on the reservation

are developed, there will follow tourist facilities such as motels and camping facilities. This kind of development will provide permanent jobs and business opportunities for the Indians. In view of the great need to complete this project at as early a date as possible, I urge your committee to include in the appropriation for the Bureau of Sport Fisheries and Wildlife the $266,000 to complete the next phase of this fish hatchery during the 1965 fiscal year.

I appreciate the opportunity of appearing before your committee and if I can furnish additional information that will be helpful I will be glad to try and do so.

WATER DEVELOPMENT AND FENCING ON MESCALERO INDIAN RESERVATION

Mr. Chairman, the Mescalero Indians in New Mexico have one of the highest rates of unemployment in the Southwest. They have been struggling for a good many years trying to devise some sort of an economic program that will enable them to help themselves. In the past they have had a small amount of Government help which for the most part has only enabled them to exist. I believe that now they have reached a point at which the Government should accelerate its assistance in order that they may bring to fruition a program that appears will provide jobs and a greatly strengthened economy.

One part of this program is an improvement and more efficient operation of their livestock industry. The Indians have had small bands of sheep and a few cattle almost since the time they were placed on the reservation. It was not until about 1912 that a cattle herd was established on the reservation by the Government. This herd was operated under the direct supervision of the Indian agency superintendent and by use of Government personnel. The herd was run in this manner until about 1930 when the cattle were acquired by the Indians on an individual basis. From that time until the present, individually owned cattle have been operated in common over the grazing lands of the reservation.

Today, the ownership of the cattle falls into three separate catagories: (1) individually owned cattle, (2) those belonging to the Cattle Growers Association, and (3) a tribal herd. The total number of cattle being run is estimated to be between 6,000 and 7,000 head. The cattle operation has not been very profitable until the last few years, when through better management, they have made some profits. The real drawback has been the lack of capital to improve the range and water facilities so that the herd could be properly distributed on the range to make better use of the forage. Being unable to do this in the past has resulted in lightweight cattle bringing a smaller total price per-head return than should be the case under proper range management.

Over half of the winter range and parts of the summer range are either without water or have a very limited supply. These areas cannot be watered by earthen impoundments because of the nature of the terrain and soil conditions. Deep wells and paved catchments must be used. Currently most of the range is being overgrazed while other parts are not used at all. The Geological Survey made a ground water study in 1960, and favorable well sites are available and located.

Development of 26 new facilities, mostly wells, is needed at a total cost of $200,000. This will enable the development of a good management plan resulting in proper distribution of livestock and improvement of range conditions.

In 1957, the Mescalero Cattle Growers Association had a range management study made by the Western Farm Management Co. in Phoenix, Ariz. This firm is experienced in the ranch business and made some very sound recommendations to the Indians which they are making an effort to carry out. The chief factor in the increased profits from the cattle in recent years has been due to improvements made pursuant to the Western Farm Management Co. recommendations.

The Western Management study revealed that the range is carrying about 3,000 head of cattle less than its capability; that the cost of the operation was excessive; that the cattle when ready for market were much lighter in weight than those from neighboring ranches, and that in some instances prices were lower. To remedy this situation it was recommended by Western Management Co. that:

1. The Indians discontinue the operation of some 244 brands being used on the cattle and use only one brand. This could be accomplished by having one brand recorded in the name of the association. This has been done with a large saving in time and money.

2. That the association initiate a program of fencing and development of additional water in order to make more efficient use of the range and to permit an increase in number of livestock that could be grazed on the ranch. One of the

difficulties with the operation has been that there is a poor distribution of water on the range making it necessary for cattle to travel long distances and in several instances this has prevented the grazing of certain areas remote from watering places. This condition has prevented the cattle from gaining the weight that they should and also resulted in overgrazing in some areas while other areas had a surplus of forage. The Indians with the help of the Bureau of Indian Affairs have worked out a program for fencing and developing water in order to comply with the Western Management recommendation, but they have been hampered by lack of funds. They have provided some money from the ranch operation.

3. It was recommended that sales methods and marketing procedures be improved and they have been. The present manager of the ranch has inaugurated a method of selling in small lots at auction and as a result this last year the Indian cattle brought about 5 cents per pound more than neighboring cattle. At the auction of Indian cattle in 1963, more than 100 buyers from Texas, Oklahoma, Missouri, Arizona, and New Mexico attended.

The association has spent considerable in the purchase of good quality bulls in order to improve the herd and the results are evident from the interest of buyers.

If the range and water improvements needed could be made now the carrying capacity of the range could be increased from approximately 7,000 head to 10,000 head because proper distribution of stock on the range could be accomplished. Proper usage would also increase the weight of the cattle sold. These two factors would put the cattle operation in excellent condition and the ranch would provide a real boost to the economy of the Mescalero Tribe.

I want to repeat that the biggest obstacle in the way now is the lack of funds to do the proper fencing and water development, and these two items are the most urgent. The year 1963 has been a very dry year and some of the tanks and waterholes have already dried up and the situation will become worse unless some new water wells are drilled this spring. It is for this reason that I urge your committee to provide at least $100,000 in the present appropriations to get this program started.

I believe that this money, when invested in water development and fencing, will return many times the original investment and will stabilize the livestock operation on the Mescalero Reservation. I hope that your committee will give favorable consideration to this request.

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## Forest Service

### Statement by Representative John B. Bennett of Michigan

### Forest Engineering Laboratory, Houghton, Mich.

Mr. Chairman, in testimony submitted to this subcommittee a year ago, I requested an increase in the appropriation requested in the President's budget for forest research activities.

I was gratified that this committee did recommend additional money for this program. As a consequence, $28,000 was made available for the planning of a forest engineering research laboratory at Houghton, Mich. An architectural firm was selected and the detailed plans are expected to be ready early in fiscal 1965.

During the past year arrangements were completed under which Michigan Technological University will make available to the Forest Service, at no cost to the Federal Government, a very choice site of 6 acres on which the laboratory will be located.

I deeply regret the omission of this important project from the fiscal year 1965 budget. You may recall that the cost estimate for the laboratory was $400,000. This estimate, which still stands, includes the $28,000 planning cost. Thus, the amount required for construction of the laboratory is $372,000. I urge you to make this amount available so that this productive program in forest engineering research can be advanced.

The Forest Service has a small engineering staff already working on the Michigan Tech campus. The progress they have made is a compliment to their ingenuity and to the excellent cooperation given them by the university. One study dealing with the production of chip wood from round logs in the forests points to substantial economies in handling such material.

There are a number of research studies which need to be started and which could do much to open up employment opportunities in our forests, particularly those in redevelopment areas such as the Upper Peninsula of Michigan. When full laboratory facilities are available we can anticipate the development of more economical methods of harvesting and transporting timber, and the development of better equipment and systems for planting, thinning, and improving forest stands.

As evidence of the public interest in this project, I include with this statement recent communications from Mr. John J. Howard, executive vice president of the Houghton National Bank, Houghton, Mich., and Mr. S. M. Cohodas, president of Cohodas Bros. Co. & Subsidiaries, Ishpeming, Mich., and respectfully requested that they be made a part of the hearing record.

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(The communications referred to in Congressman Bennett's statement follow:)

LAKE STATES FOREST EXPERIMENT STATION AT MICHIGAN TECHNOLOGICAL UNIVERSITY

HOUGHTON, MICH., *February 25, 1964.*

Hon. JOHN B. BENNETT,
*House Office Building, Washington, D.C.:*

Respectfully urge that funds for construction and operation of forest-engineering laboratory on Michigan Tech campus be allocated. Present engineering laboratory on campus, as well as its annual operating budget, is inadequate. This new proposed facility would be a needed stimulus for the wood products industry throughout the entire Lake States area. Would appreciate it if this message were made a part of the hearing record.

Very truly yours,

JOHN J. HOWARD.
*Executive Vice President, Houghton National Bank.*

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ISHPEMING, MICH., *February 25, 1964.*

Congressman JOHN B. BENNETT,
*House Office Building, Washington, D.C.*

DEAR CONGRESSMAN BENNETT: In conjunction with the wisest use of our natural resources in the Upper Peninsula, we have several programs of research. The Lake States Forest Experiment Station of the U.S. Forest Service very recently received money to design a laboratory to be located on the Michigan Technological University campus. However, no money has been set up in the budget for actual construction of the laboratory.

We know that wood is one of our sustaining natural resources. Research has been responsible in part for new wood-using industries in the Upper Peninsula and the expansion of several paper mills and sawmills. This means construction dollars, payroll dollars, and tax dollars. We have a golden opportunity to help stimulate this business.

President Kennedy, at the Land and People Conference in Duluth this fall, said, "Our goal is the full employment of both the natural and human resources which this area still possesses in abundance."

President Johnson has endorsed this attitude and concurs with statements made at the Land and People Conference. (This is what we are trying to do with this project.)

We respectfully urge that you use your best efforts to impress the committee at the House hearing with the need for this facility. Would you endeavor to have this communication read into the record and included as part of the record at the hearing in the House.

Sincerely yours,

S. M. COHODAS, *President.*

Chairman HAYDEN. The committee will stand in recess until 9:30 a.m., Friday, March 6, when we will hear outside witnesses.

(Whereupon, at 11:15 a.m., Thursday, March 5, 1964, the subcommittee adjourned, to reconvene at 9:30 a.m., Friday, March 6, 1964.)

# DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1965

FRIDAY, MARCH 6, 1964

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, D.C.*

The subcommittee met at 9:30 a.m., pursuant to recess, in room 1223, New Senate Office Building, Hon. Robert C. Byrd, temporarily presiding.

Present: Senators Byrd, Bartlett, and Young.

Also present: Senators Stennis and Smith.

DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES

NONGOVERNMENTAL WITNESSES

Senator BYRD. The subcommittee will be in order. This morning the committee will hear nongovernmental witnesses who desire to present testimony concerning various matters in the Department of the Interior and related agencies appropriation bill. There are many persons who are scheduled to appear today, and in view of the number, and the present parliamentary situation on the floor of the Senate which may at times cause the hearing to be recessed in order that committee members may vote, I suggest that it may be possible for the witnesses this morning to file their statements for the record, consent for which is hereby given, and summarize their positions orally.

GENERAL ELECTRIC CO.

## STATEMENTS OF DR. GEORGE L. HALLER, VICE PRESIDENT, ADVANCED TECHNOLOGY SERVICES, AND VANCE R. COOPER, MANAGER, CHEMICAL & MATERIALS ENGINEERING LABORATORY

PROJECT "BOOTSTRAP" PROGRAM

Senator BYRD. Our first witness is Dr. George L. Haller, vice president of the General Electric Co., and he will be accompanied by Mr. Vance R. Cooper, manager, Chemical & Materials Engineering Laboratory, Advanced Technology Laboratories, General Electric Co.

These gentlemen are testifying for General Electric Co. in connection with the Project "Bootstrap" program of the Department of the Interior.

Dr. Haller, you may proceed in any way you wish. If you have a prepared statement, you may wish to read it, and also your associate, Mr. Cooper, may proceed to present testimony in any way you two gentlemen desire.

Dr. HALLER. Thank you, Senator Byrd. Please let me express the appreciation of the General Electric Co. for this opportunity to report the progress of our work on Project Bootstrap. We feel very strongly about the potentials of electrical processing through corona chemistry, and our work for the Office of Coal Research is one of our major efforts toward an actual application.

ADVANCED TECHNOLOGY LABORATORIES, SCHENECTADY, N.Y.

The work is being performed by members of the Advanced Technology Laboratories in Schenectady, N.Y. The ultimate goal of the project is to develop a practical, continuous method of treating coal to produce products which are valuable as hydrocarbon fuels, plus some useful chemical byproducts. We expect to achieve this in a high-voltage electrical reactor operating at atmospheric pressure. The process would be self-supporting and would lend itself to continuous operation and automatic control. The only raw material needed would be coal.

ELECTRICAL PROCESSING THROUGH CORONA CHEMISTRY

First, I will report on our progress to this point. To keep my comments in proper perspective, I will include some background on corona processing and the company's attitude toward it.

Work on corona dates back to the early 1900's. There was a period during World War II when the work virtually ceased due to technology emphasis on nuclear reactors, electron beams and radioisotopes. The level of work remained at a low point until the late 1950's. The early work in corona achieved very little of commercial utility. With hindsight, we can say that the work was premature in relation to the underlying technology. However, much of this technology was developed through other work to a higher state during the forties and fifties when the corona effort was relatively small. Four things happened of significance to corona processing:

(1) Radiation chemistry, which is virtually identical to corona chemistry, provided a solid base of understanding of free radicals and their reactions.

(2) Electrical apparatus builders, like General Electric, studied the destructive effects of corona and came to understand its nature.

(3) There was substantial improvement made in equipment for generating and controlling high-voltage, high-frequency power. This power, used in corona processing, is low cost relative to other sources of radiation energy.

(4) Several important processes for producing bulk chemicals have been developed using radiation chemistry.

CORONA AS AN INDUSTRIAL TOOL

By the late fifties, the conviction had grown in the Advanced Technology Laboratories at General Electric that they could develop corona processing into an important industrial tool. With its nucleus of men who knew both electricity and chemistry and with its wide spectrum of supporting technologies, these laboratories envisioned significant breakthroughs leading to substantial business for General Electric in corona processing apparatus. The pursuit of this tech-

nology is also in keeping with out continuing efforts to develop new applications of electrical energy.

A development program was initiated in 1960 with company funds. At the very start, we recognized the need for financial and processing-technology assistance from potential users of the corona process. We have interested a number of other companies in our work, and they have purchased corona processing research equipment from us. These include leading representatives of the petroleum, steel, and food processing fields. Also, we have continued our corona experimental work in several other fields which show promise of yielding commercial applications.

Let us move now from the broad interests of General Electric in corona technology development to the specific work which is of most interest to this subcommittee.

### Research and Equipment Development Program

Under our present contract with the Office of Coal Research, we have been conducting a research and equipment development program. This has resulted in a family of corona reactors which can convert coal to liquid and gaseous hydrocarbon products by subjecting the coal to hydrogen atoms and other free radicals produced in an electric corona discharge. These include reactions between gas and dry powdered coal, gas and a liquid solution of coal dissolved in a suitable solvent, and gas and coal volatile vapors.

We have also investigated the energy required to produce the free radicals necessary for the reaction with coal. The results of these tests show promise that the radicals can be produced at a sufficiently low electrical energy consumption to make the process economically attractive.

In addition we have been successful in obtaining reactions with coal and coal tar and have produced desirable aromatic products of the benzene-toluenexylene type at energy consumption in the low range needed. These derivatives of the process would be useful as gasoline blending stock to increase the octane rating.

### Yield and Electrode Material

While our development work to date has progressed well, the yield of the laboratory equipment is still small in terms of pounds of product per pound of coal. Also, we have not been able to run for extended periods of time due to problems with the equipment electrode material. We have conducted small-scale tests which show that these material problems can be solved, however.

The finished products must be removed and separated and the three essential cycling steps must be performed with the residue; that is, the char is removed to furnish corona power, the heavy hydrocarbon liquids remaining are sent to the start of the process to act as a carrier for the new coal input, and the useful light gases and fractions returned to furnish the proper corona environment.

### Technical Possibility of Process

We feel that we have demonstrated that the process is technically possible, but there is much work remaining before a commercial plant can be built.

First, we must demonstrate continuous operation. Secondly, we must increase the yield of desirable products per pound of coal. And third, the process must be made self-sustaining to justify the "bootstrap" designation.

### Pilot Plant Program

We see no reason why these things cannot be accomplished by the work remaining on the present contract, coupled with the work we have just recommended to the Office of Coal Research in a pilot plant program.

I will use a chart which I have here to describe the relationship of the present work to the work we are recommending for the continuation of this project. As you see, on the time basis, our present work is drawing to a close. A process and equipment development phase should be started at that time.

It is evident that we have a new tool for processing coal, one that works at atmospheric pressure, one that preserves in the liquid fuel product most of the valuable aromatic structure of the coal, and one that has flexibility for adaptation to many types of coal processing schemes.

### Process and Equipment Development Phase

It is, however, also evident that our understanding of the overall process is based on incorporation of the key conversion step into a total process cycle designed to utilize the products of other process steps. We could not build a pilot plant today, as our understanding of the influence of many of the process variables and their interrelationships to each other has not yet been determined. This determination is the purpose of the process and equipment development phase of the program.

It is essential that we make longer runs in which steady state is reached—such that better material and energy balances can be made. From the corona process, we need to derive heavy oil in which to dissolve fresh coal and then react this solution in the corona reactor. There are electrode problems to be solved. Most important, we must obtain more quantitative data regarding yield, electrical efficiency, and distribution of product so that the overall economies can be known with the greater certainty necessary before investment of major funds.

### Design, Construction, and Operation Phases

From this phase we would move into the actual design phase and on to construction and operation phases. These are separate and overlapping for two very important reasons. First, we feel that the separation of the pilot plant program into these distinct steps affords effective checkpoints during the work to justify further commitments. Secondly—and very important to continued success—it allows the General Electric Co. to maintain a continuity of personnel assigned to the work. For Project Bootstrap, we have brought together a diversified team of scientists and technologists—organic and polymer chemists, chemical engineers, electrical engineers, mechanical engineers—plus an able staff of technicians and the facilities of the Advanced Technology Laboratories. An interruption in work would necessitate a reassignment of these men and facilities to other projects, and it might not be possible to draw them all together again

should the work be resumed. We could lose significant technological continuity and certainly valuable time. Harder to measure—but potentially most important—we would disrupt the work of a dedicated team of investigators who are convinced that the corona process can be used to convert coal into more useful products at a lower cost than apparent in other techniques.

### Corona Equipment for Coal Conversion

We have made some significant steps in the development of corona equipment for coal conversion. We have a team of excellent men working on the expansion of this technology. It is my belief that we should proceed on the orderly plan which I have briefly described as the pilot plant program. In our judgment, this offers the best possibility for obtaining the technical and engineering information necessary to determine the commercial feasibility of the corona process for coal conversion.

Senator Byrd. Thank you, Dr. Haller.

Mr. Cooper, do you have anything at this point?

### Pilot and Operating Plants

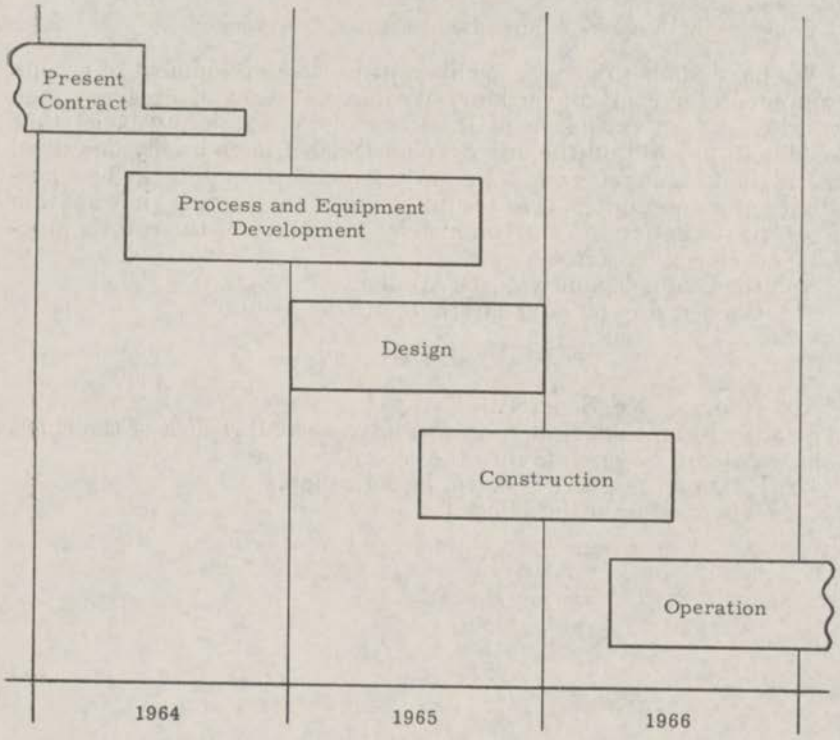
Mr. Cooper. No, Senator.

Senator Byrd. Dr. Haller, do you have a small replica of the chart that we might incorporate into the record?

Dr. Haller. Yes, sir; that will be furnished.

(The chart referred to follows:)

PILOT PLANT PROGRAM




Senator BYRD. The chart shows the pilot plant construction completed in 1966. Does this mean that we can count on an operating plant by that time?

Dr. HALLER. The operating plant would not be finished at the same time that the pilot plant is, but the operation of the pilot plant would be going on in 1966 and I think that a large operating plant by that time could be started.

It would probably take another 2 years to get a large operating plant working.

Senator BYRD. But your pilot plant will be finished?

Dr. HALLER. Yes, it would be. It would be in operation in 1966.

Senator BYRD. Are we talking about the early part of 1966, or the latter part; and are we talking about fiscal year 1966?

Dr. HALLER. No, this is calendar year 1966 and the pilot plant would be operating early in 1966.

Senator BYRD. Early in the calendar year?

Dr. HALLER. Early in the calendar year.

Senator BYRD. Is General Electric doing all possible to expedite this work?

EXPEDITING THE PROGRAM

Dr. HALLER. I think, Senator, that we are doing all that is reasonably possible. It is a little hard to define, when we can think of such great crash programs as the Manhattan project, and so on. But we are not thinking of it in those terms.

I think we are doing all that is reasonably possible.

Senator BYRD. Is the Government funding level retarding the completion of the program?

Dr. HALLER. No, it is not. I think, however, we must be considering the negotiation of this pilot plant project, and we should be into this very soon.

Senator BYRD. Do you have indications that the Office of Coal Research is moving in this direction?

Dr. HALLER. Yes, they are, as far as I know; yes, sir.

Senator BYRD. You do not see any indications that there is going to be any delay from that end?

Dr. HALLER. I do not think so, sir.

BUILDING PILOT PLANT IN 1965

Senator BYRD. Could a pilot plant be built in calendar year 1965?

Dr. HALLER. I do not think it would be advisable. I think this is an orderly program and it has the necessary checkpoints so we do not waste a lot of money.

Senator BYRD. What would be the economic impact of this work on the Nation?

Dr. HALLER. If this work is successful as we hope, I think that it could increase the use of coal by at least 50 percent over its present use.

Senator BYRD. Over the present use?

Dr. HALLER. Over the present use of coal. I think this would have a tremendous impact.

BENEFITS TO RELATED INDUSTRIES

Senator BYRD. Do you feel that related industries would benefit, such as the petroleum industry, for example?

Dr. HALLER. Yes, certainly. All sorts of related industries would benefit and, of course, where these plants are the communities would benefit, too, because it would have increased industrial activity near the source of the hydrocarbons and near the source of the coal.

INVESTIGATION BY PETROLEUM INDUSTRY

Senator BYRD. Is the petroleum industry, for example, investigating the use of this process?

Dr. HALLER. Yes, they are. In fact, one of the large petroleum companies has bought one of our reactors for experimental laboratory use.

Senator BYRD. How much money will be required to complete the program?

Dr. HALLER. I think a total of somewhere between $5 and $10 million through the pilot plant stage.

FEDERAL GOVERNMENT SUPPORT OF THE PROGRAM

Senator BYRD. How much of the corona work is supported by the Federal Government?

Dr. HALLER. I think on a national basis that about half of the corona work going on is under Government support.

Senator BYRD. Would the General Electric Co. do this coal work, if the Government should cut off the funds?

Dr. HALLER. I think we would keep it going, but at a lower level, because there are some other very promising commercial leads which might take some precedence with regard to us over the coal work. I do not think we would go into the pilot plant operation.

Senator BYRD. So you do not think that the company would fund the pilot plant operation out of its own moneys?

Dr. HALLER. No, sir.

EXPERTS COOPERATING ON THE PROJECT

Senator BYRD. Have the opinions of others than General Electric people been solicited on the potential work of this project?

Dr. HALLER. Yes. We have the favorable opinion of several experts, Professor Gilliland of the Massachusetts Institute of Technology, and Dr. Loeb from the University of California, and several others. But those are the two most notable, I believe.

Senator BYRD. What are the full names of these two gentlemen?

Mr. COOPER. E. R. Gilliland.

Dr. HALLER. And Leonard B. Loeb, professor of physics, at the University of California in Berkeley. Professor Gilliland is professor of chemical engineering at MIT.

PILOT PLANT INSTALLATION AND EMPLOYMENT

Senator BYRD. Will this pilot plant installation create employment?

Dr. HALLER. Certainly the construction and operation of the pilot plant will create employment. The size of it, we are not quite sure yet, nor the extent that it would do that. But it would be the construction of the laboratory pilot plant with all of the services required.

LOCATION OF THE PILOT PLANT

Senator BYRD. Would the pilot plant operation lend itself to a location near an operating mine?

Dr. HALLER. It could very well, yes.

Mr. COOPER. As long as the utilities were available, electric power, waste disposal, and the like.

Senator BYRD. How much acreage would be necessary for the pilot plant operation?

Mr. COOPER. I think our block was set up on the basis of 2 to 30 acres, because it would need to accumulate coal to feed into the system and it would need to have an area to store waste products.

Senator BYRD. I suppose you would consider it advantageous or virtually a necessity that the pilot plant be located in close proximity to an operating mine.

Dr. HALLER. At least in the area of operating mines, yes.

Senator BYRD. There should be a railroad siding in the area?

Mr. COOPER. Right.

Senator BYRD. Would you want level land, or would it make any difference as to whether it was fairly level?

Mr. COOPER. It would certainly reduce the cost of construction if we had level land.

Senator BYRD. How much of the land would you envision as having to be level for the facility itself?

Mr. COOPER. You could plateau the area. As long as you could generate a plat roughly 1,000 by 500 feet, which should be level. You like to have all your pipelines and conveyor systems on a good level area.

Senator BYRD. So that would be a square footage of 500,000 square feet?

Mr. COOPER. Yes, sir.

Senator BYRD. And then the remainder of the 10 to 30 acres could vary from level to rolling?

Mr. COOPER. Providing you could reasonably terrace it. You would not want to have real abrupt breaks in the profile of the land.

### COMPARISON OF PROCESSES

Senator BYRD. How does this process compare with others?

Dr. HALLER. Perhaps I can answer that. One of the others is the radiation process. The cost per kilowatt of the energy needed runs around a cent per kilowatt for the corona, about $1 for the ordinary electron beam, and for a radiation device it would run around $10, so there is an enormous advantage in cost.

Senator BYRD. I take it you feel that there is real promise, Dr. Haller?

Dr. HALLER. We certainly do.

Senator BYRD. That is, real promise of success?

Dr. HALLER. Yes; we are not positive enough to say that we should build a big plant. There are several things in the line process we want to nail down, but the first indications show real promise. I do not think we would have the good team of men assigned to this work, unless we felt there were definitely some potential.

### PERSONNEL

Senator BYRD. How many men do you have assigned to the work?

Dr. HALLER. We have about nine.

Senator BYRD. How long has this team been assigned to this work?

Dr. HALLER. About 2 years.

Mr. COOPER. Yes, the contract negotiations started in January of 1962, as I recall. We really got underway in the summer of 1962 and they have gradually built up the force of people assigned to the project. You always have to have your bid people to lay the groundwork, and that is what we have done.

### GOVERNMENT COOPERATION

Senator BYRD. And you do not feel the Government has been lax in its approach?

Dr. HALLER. We have been very encouraged by the help and support, both technical and administrative, that we have found from the people in the Government.

Senator BYRD. Do you feel that the Office of Coal Research has moved along as expeditiously as has been warranted?

Dr. HALLER. We think so.

Mr. COOPER. I think they have been very aggressive, Senator, in keeping track of this program and seeing that we do everything possible.

Senator BYRD. Are you pleased with the enthusiasm that is shown by the Office of Coal Research, concerning the project?

Dr. HALLER. Very much so; I have met with these people. As a matter of fact, the day before yesterday we had a meeting in Schenectady with the evaluation team. I think they show a lot of enthusiasm and able administration.

PROGRESS OF THE PROJECT

Senator BYRD. And you feel that the project is developing as rapidly as it is economically feasible?

Dr. HALLER. I think that is the best term for it.

Senator BYRD. And as rapidly as it is technologically feasible?

Dr. HALLER. That is correct.

Senator BYRD. You do not think it can be expedited, practically speaking?

Dr. HALLER. I think it is at the point where the returns of expedition might be negligible.

Senator BYRD. Diminishing?

Dr. HALLER. Diminishing, yes. You can always, as you and I know, pour lots of money into something and get a little bit more, but I do not think the amount that you would gain from further acceleration would be justified.

Senator BYRD. Do any of your associates have additional material, Dr. Haller?

Dr. HALLER. No, sir.

Senator BYRD. Senator Bartlett, do you have any questions?

Senator BARTLETT. I have no questions.

Senator BYRD. Dr. Haller, we certainly thank you for your appearance here today. We feel that your testimony will be helpful to the subcommittee. We appreciate the fact that you have been somewhat inconvenienced, and we are grateful for your cooperation in coming down.

Dr. HALLER. Senator, we appreciate the opportunity to be here today with you to discuss the subject.

Senator BYRD. And we wish you well in your further work on the project.

Dr. HALLER. Thank you.

Mr. COOPER. Thank you.

NATIONAL LUMBER MANUFACTURERS ASSOCIATION

## STATEMENT OF WILLIAM T. JOBE, JR., GENERAL COUNSEL

FOREST PRODUCTS LABORATORY, MADISON, WIS.

Senator BARTLETT (presiding). Mr. Doyle and Mr. Muschler, please.

Mr. JOBE. Mr. Chairman, my name is William T. Jobe, Jr. Mr. Doyle could not be here today. I am the general counsel for the National Lumber Manufacturers Association. With your permission, I would like to submit our statement for the record in support of the expansion of the Forest Products Laboratory facilities in Madison, Wis.

Senator BARTLETT. The committee will be glad to accept the statement, Mr. Jobe. Do you have any verbal statement you care to make at this point?

Mr. JOBE. Mr. Chairman, in view of the pressure on the committee, unless there are some questions I would be very happy to have our statement stand.

Senator BARTLETT. There will be no questions. I think the Senate acted favorably on this last year?

Mr. JOBE. Yes, sir.

Senator BARTLETT. Very well, the statement will be included in the record.

(The statement referred to follows:)

FOREST PRODUCTS AND FOREST PESTS CONTROL RESEARCH

Mr. Chairman, my name is William T. Jobe, Jr. I am general counsel of the National Lumber Manufacturers Association which has its main offices here in Washington. Our association is a federation of 17 regional species and products organizations operating throughout the United States on behalf of the entire American lumber producing industry. Our industry takes pride in the fact that we rank as the fourth largest employer of manufacturing labor in the United States.

This opportunity to appear before your committee is in support of two programs which we believe to be vital not only to our industry but to our Government as well. One of these programs would greatly improve our Government's present forest products research program at the Forest Service's Madison Laboratory; and the other would advance the important work being done by the Fish and Wildlife Service's chemical screening research program for the control of forest pests.

Wood use in this country is more dependent on the Madison Forest Products Laboratory than is generally recognized.

You are probably aware that at this time the forest products industry is going through a very difficult economic period. There is intensive correlation between the areas of the country with high unemployment and poverty, and areas of the country growing commercial timber. Competitive materials, because of the greater concentration of their industries, have been able to devote more efforts to research, and thereby capture an increasing share of construction markets. These materials require much less labor to manufacture and to use. Of all the construction materials, wood is the only one that comes from a renewable resource.

The entire nation depends on the Madison Laboratory for the basic type of wood research that is needed by State, regional, and industry laboratories which do product development work. The work assigned to the Madison Laboratory generally entails very expensive basic wood research, which is not, need not and cannot be duplicated any place else. Actually, only scientists skilled and capable in these fields are assigned to the Madison Laboratory. If other laboratories tried to engage in the same type of basic research, they would have to "raid" the Madison Laboratory's scientific force and, secondly, they would have to duplicate the extremely expensive research equipment. Both measures would be harmful from a long-range wood utilization standpoint. This is why the Nation's wood industry

has given overwhelming priority to supporting expansion of the Madison Laboratory over any other wood research facility.

As early as 1957, the bipartisan Commission on Increased Industrial Uses of Agricultural Products, which had been established by former President Eisenhower, in a final report to General Eisenhower recognized the significant work being done at the Madison Laboratory, and recommended extensive expansion of its then-existing facilities.

In the last Economic Report which the late President Kennedy submitted to Congress in January of last year, he urged "new support of science and technology that directly affect industries serving civilian markets." President Kennedy explained that, in turn, this would represent "a rounding out of Federal programs across the spectrum of science." We fully agree with the late President in his conclusion that the returns from improved technology which can be made available to civilian industry "will be better products and services at lower prices," and that "a national research and development effort focused to meet our urgent needs can do much to improve the quality of our lives."

The Federal Government—in line with the late President's thinking—has, since 1910, operated a forest products laboratory at Madison, Wis., which without doubt has proven itself in the field of wood products utilization as a useful supplement to the research efforts of the forest products industry.

Unfortunately, there has been no major expansion of the Madison Forest Products Laboratory research facilities since the present structures were built some 30 years ago.

The American forest products industry has been much encouraged by President Johnson's fiscal year 1965 budget in which the President stated that "an addition to the Forest Products Laboratory in Madison, Wis., will be constructed in 1965." President Johnson explained that "this will permit expanded research on wood utilization techniques and standards resulting in benefits to the lumber industry, landowners, and consumers." We strongly support the President's intentions and urge that Congress now make the necessary funds available to carry forward this objective.

Tangible results from an expanded and accelerated research program at Madison, Wis., would also help protect the Federal Government's present investment in trees. Such protection is largely dependent on the availability of funds with which to complete construction and staffing of the departmental-approved forest products laboratory facilities currently planned and urgently needed at Madison, Wis.

At the present time, the Federal Government owns approximately 130-million acres of national forest timberland. A large portion of Federal funds is invested each year by our Government in the management of its national forests. The effective management of most of this valuable national resource has been made the responsibility of the U.S. Forest Service, which is one of the few agencies of our Federal Government that annually returns a substantial income to the Federal Treasury. This income is made possible by the wise management and the wise investment which the Congress expends on our Nation's forests.

Practically all of the income from federally owned timberlands is derived from the sale of Government timber to the lumber and wood products industry. The price received by our Government for this timber is related to the market price of the end products manufactured from timber. Protection, therefore, of the market for these end products is of major concern not only to the industry, but to the Federal Government, which in its own self-interest should protect its huge investments in growing trees.

I am sure that each of you is aware that our industry and the American communities dependent upon it for their prosperity are currently faced with difficult economic problems which have been seriously compounded by constantly mounting imports of foreign lumber. On the basis of statistics currently available, softwood lumber imports from Canada alone now supply more than 16 percent of the domestic U.S. softwood lumber market, compared to approximately 5 percent in 1958, or just 6 years ago.

In seeking to resolve its import problems, the American lumber industry has sought only that help from its Government which would bring about those conditions of equal competition that would enable it to sell its products competitively both at home and abroad.

It seems to us that the buttressing of the Forest Products Laboratory at Madison is a logical beginning where Government and the American lumber industry can join together to resolve the industry's critical problems.

We were much impressed by the remarks made last year by Under Secretary of the Treasury Fowler at the National Security Industrial Association's research and development symposium in which he stated:

"As an important aside, the new products and promotion processes from American research laboratories can be important not only in stimulating domestic demand but also in aiding the expasion of foreign markets and the alleviation of our balance-of-payments difficulties. In view of the increasing research efforts of many of our international competitors, it is vitally important that we redouble our efforts. The total of nonspace, nonmilitary research and development effort in Western Europe and Great Britain is larger in quantity than that in the United States, although their gross national product is only about half as large."

The Senate last year also demonstrated its keen interest and vital concern for advancing our Nation's scientific and technological programs by passing legislation to establish a Commission on Science and Technology. The committee report accompanying this measure noted that, among other things, it was needed so as to insure "continued national progress in an era of universal scientific and technical development" and to further insure "the maximum utilization of all available scientific know-how and information by coordinating the research and development programs of the Federal departments and agencies with those of American business and industry * * * ."

Our industry, within the limits of its capabilities, has put forth considerable effort to promote new uses for forest products at home and abroad. However, because it is basically composed of a great number of small and very small mills, an individual firm within our industry is only too often unable to finance major and complicated research and development that would result utlimately in a major technological advance.

This specific factor, we believe, deserves considerable weight in the consideration of Government research programs designed to find better and more useful lumber and wood products. The impressive gains that would accrue to the entire economy by making dynamic technological developments available to all firms do not have to be defended and detailed, particularly for this committee.

The American lumber industry believes that a request for continued expansion of the Forest Products Laboratory at Madison, Wis. dovetails with this objective.

The lumber industry has carefully reviewed the proposed three-stage program developed by the Department of Agriculture for the expansion of the forest products research facilities at Madison. In our judgment, this proposal reflects a well-conceived plan for expansion of both wood fiber and wood chemistry and solid wood products research programs, and we hope that your committee will approve the $3.8 million in funds necessary to get the program underway.

Now, briefly turning to another important appropriations item—the control of animal damage to our Nation's forests.

The Denver Laboratory of the Fish and Wildlife Service performs a singularly important task in that it tests and screens chemicals for the control of animal pests. Lumbermen are greatly impressed by a statistic developed by the U.S. Forest Service contained in its study entitled "Timber Resources for America's Future," in which the Forest Service estimated that 600,000 homes could be built each year with the timber destroyed by animal pests, mostly rodents.

Among the costs for this nationwide research program is an estimated $600,000 in capital expenditures for a necessary addition to the Laboratory at Denver. Essentially, as we understand, the request for salaries and expenses is about at the same level as in last year's budget.

Last year, as part of our statement in support of this important appropriations item, we submitted a booklet for the committee's files entitled "There's Trouble in the Woods." This booklet, which was prepared by 26 State, Federal, and private organizations in the Northwest, describes in detail the imperative national importance of controlling forest animal damage. Although based on problems faced by the Northwest, the report could have been written similarly for the Eastern, Southern, or Lake State areas of our Nation. If the committee so desires, we would be happy to make additional copies of this study available to you and your staff.

Since the release of "There's Trouble in the Woods," another study, still in preliminary form, which was also developed through State, Federal and private cooperation, is currently in the process of being completed by the Fish and Wildlife Service. This study entitled "Forest Wildlife Damage Review" contains detailed information on many of the most pressing wildlife damage problems faced by each of our Nation's geographic areas which at the present time require urgent remedial action. We plan to submit copies of this report to the committee as soon as they are available.

We strongly recommend that the animal damage control methods research chemical screening and testing program carried on by the Fish and Wildlife Service be continued in 1965 at least at their existing level. We respectfully suggest that this committee consider the desirability of increasing funds for this activity even above the present budget request, for there is at present a heavy backlog of important work which is being delayed because of a lack of sufficient funds to carry on an effective program.

The Denver Laboratory's work is essential to the proper forest management of both public and private lands. Sufficient appropriations for this activity would also help the Service to more effectively fulfill its public health and safety responsibilities in the controlled testing of potentially hazardous chemical compounds.

We urge strongly that your committee approve the funds requested for the Fish and Wildlife Service to cover the expenses of operating this very important research program seeking to control animal damage to our Nation's forest lands. We believe, however, the funds requested are at the bare minimum and fall far short of those necessary to carry forward an effective program at the Denver Laboratory.

Mr. Chairman and gentlemen of the committee, on behalf of the U.S. lumber industry, I strongly urge that you approve the current provisions of the fiscal year 1965 budget that would provide $3.8 million to cover the cost of the first stage of an estimated $10 million expansion program for the Forest Products Laboratory at Madison, Wis., which construction is proposed to be implemented over a 3-year period.

We believe also that Secretary Fowler in his timely statement of last year eloquently summarized the importance that approval of a program such as this would mean to our Government, the forest-based communities throughout our Nation, the American lumber industry, and its employees when he said:

"Expanding technology multiplies new investment opportunities by opening up new products, services, and demands; by increasing efficiency in existing products and services, it may spur defensive or competitive investment or open additional markets, increasing productivity per capita."

We also strongly urge approval of much-needed funds for the improvement and necessary expansion of the Fish and Wildlife Service's program for the control of animal pest damage.

In appearing before this committee, Mr. Chairman, we would like you to know that the American lumber industry has always appreciated and realized that this committee and the Senate have an especially keen awareness of the need for appropriations for these two significant programs, and in the past has given them overwhelming approval. This is particularly encouraging to the lumber industry which has long recognized the significance of these two programs to development of both Government and private forestry. We hope that this committee and the Senate will continue to support these important programs.

Thank you very much.

ADDENDUM

Mr. Chairman, in that part of our basic statement concerned with the wildlife studies that are helping to reduce the costs of timber growth, we overlooked mentioning that the Forest Service and the Fish and Wildlife Service are jointly cooperating with the State of Washington, at Olympia, in the conduct of some of the research. The work is done in consultation with more than a score of private, State, and Federal groups and agencies. The Forest Service share in this project is $36,000 which is most important to the industry.

In addition, we also request permission to have the following information on the European pine shoot moth control method included in the hearing record as part of our statement:

EUROPEAN PINE SHOOT MOTH CONTROL METHOD

The European pine shoot moth is a threat to the pine forests of the 12 Western States. There is no known method of control of the pest and it would make timber growing impractical on hundreds of millions of acres of our commercial timber growing land. About two-thirds of the forest land involved is in Government ownership. If this pest becomes established in the United States it could become the greatest timber destroying insect of all time. The one occurence of the insect in Washington State near Spokane was eradicated by destroying both plants and the moth. It is now known to exist 60 miles north of the border in the Okanagan Lake country in Canada. About $250,000 has been spent on

containing this pest in the past few years. There is $25,000 in the present budget to develop a practical method of control. This is not enough to even get a good start. It may be necessary to divert funds from other less urgent projects. This pest dictates that we first carefully survey constantly for the presence of the moth and that it be immediately contained and eradicated, and, second, that we go to work immediately to find a permanent solution through entomological research.

Senator BARTLETT. Mr. Muschler, please.

EDWARD HINES LUMBER CO., CHICAGO, ILL.

## STATEMENT OF ARTHUR F. MUSCHLER, TECHNICAL DIRECTOR

### FOREST PRODUCTS RESEARCH

Mr. MUSCHLER. I am Arthur F. Muschler, technical director of the Edward Hines Lumber Co., and also representing the Forest Products Research Society as a member of the executive board and the professional Society of Wood Science & Technology as past president. Both these societies are anxious to emphasize the critical need for increased effort in forest products research.

The Federal Government is owner of 40 percent of the standing timber in the United States and, as such, must recognize a dominant interest in forest products research which will assure future markets and maintain the value of these vast properties.

The lumber industry, for example, is made up of some 30,000 units. The 10 largest represent less than 10 percent of the total lumber production. The burden of fundamental research in processes and products, of necessity, rests almost totally with the Federal Government as the single dominant forest-land owner.

We are faced today with a declining per capita consumption of lumber and other forest product and a dramatically increasing rate of timber growth. This timber growth earlier exceeded timber harvest on a cubic foot basis.

### TIMBER GROWTH EXCEEDS HARVEST

More recently, growth has exceeded harvest even on a board foot, or sawtimber, basis. The victory in growing timber may be a hollow victory, indeed.

I am particularly interested in speaking for myself and for my company in order to emphasize the need for forest products research centered at a National Forest Products Laboratory, rather than expensive fragmentation of facilities along regional lines and similar to the trend which perhaps is necessary within the Forest Service in forest management research.

Problems in forest products research are national problems. Problems in forest products research require the coordinated effort of teams of researchers in each of several fields of knowledge.

### RESEARCH REQUIREMENTS

Such research requires adequate building, expensive equipment, suitable library, and constant consultation with industry. One wood technologist, one engineer, one physicist, one chemist, and one statistician, plus building, equipment, and library, will inevitably

produce in a regional forest products research situation that one more design for a better wood picnic table.

Mr. Chairman, we are blessed with an abundance of designs for a better wood picnic table. Unfortunately, these efforts will not answer industry needs today, and certainly will not answer industry needs tomorrow.

LABORATORY FACILITIES ARE OLD

The Forest Products Laboratory in Madison is housed in facilities which are 30 years old. The facilities do not do justice to the world-wide reputation of the staff, of the library, and of past accomplishments. The Laboratory is convenient to all producing regions. However, buildings and equipment are in dire need of expansion and modernization. We strongly believe funds for forest products research should be concentrated in Madison, where these funds will be most effective.

I appreciate this opportunity to appear before you in support of this important project, and want to thank you very much for granting me this opportunity.

Senator BARTLETT. Mr. Muschler, is this the largest such laboratory in the country?

Mr. MUSCHLER. Yes, sir; in the world, in fact.

Senator BARTLETT. How many other laboratories does the Forest Service have, do you know?

REGIONAL UTILIZATION LABORATORIES

Mr. MUSCHLER. The Forest Service has regional utilization laboratories which more or less, at the present time, fill the gap between the forest management and the forest products work dealing heavily in logging techniques and harvesting methods.

SURPLUS OF TIMBER

Senator BARTLETT. Granted the need for improving this Laboratory, as the Senate did grant last year, nevertheless I think we are far better off if we have a surplus of timber than a deficit, do you not?

Mr. MUSCHLER. Well, of course, we need a backlog.

Senator BARTLETT. From the national viewpoint?

Mr. MUSCHLER. Yes, sir.

Senator BARTLETT. Thank you very much, Mr. Muschler.

The distinguished minority leader of the Senate, Senator Dirksen, is accompanying Mr. Tudor, director of the Division of Area Services for Southern Illinois University on the Forest Service budget request. Do you have a statement to make, Senator?

FOREST SERVICE

## STATEMENT OF HON. EVERETT M. DIRKSEN, U.S. SENATOR FROM THE STATE OF ILLINOIS

SOUTHERN ILLINOIS UNIVERSITY

Senator DIRKSEN. I thought, Mr. Chairman, I ought to make a brief statement, because I am quite interested in this whole matter. I do not know if you are acquainted with Southern Illinois University.

Senator BARTLETT. Not as I should like to be; no.

Senator DIRKSEN. We are quite proud of Southern Illinois University which has today in the neighborhood of 18,500 students. It is now one of five universities that we have in the State, Northern, Southern, Eastern, Western, and then the University of Illinois.

But it is something more than a cultural center and an educational center, because it undertakes to serve specifically all of the people and the interests and activities in the lower counties of the State particularly.

### UNEMPLOYMENT ANALYSIS AND RESEARCH

It is an area where we have had difficulty. The loss of a good many marginal coal mines and that sort of thing has accounted for high incidents of unemployment and it is to that that Dr. William Tudor, the Director, Division of Area Services, gives his very particular attention.

The school was started on the theory that the best way, finally, to help in this poverty is to direct attention to the resources of an area and their development so that the youngsters do not have to move out after high school and that we can sponge up the job list.

We have a high rate of relief in that area, so that the university becomes a center for analysis and for research. To indicate how far they have gone, they have 164 majors in forestry today, and they do have something over 600 in their agricultural school that was started only a few years ago.

### CONSTRUCTION OF LABORATORY AND GREENHOUSE

Now their one good resource is timber and they have been trying to bring in industries that utilize wood and wood products. I think that is one of the main hopes. And today they are asking for something in the neighborhood of $690,000 with which to construct a laboratory and a greenhouse and some additional related facilities.

I think it should be pointed out that the school is presently doing pretty well by the Government, meaning the Federal Government, because they have made storage rooms and other facilities available for our own Federal forest research people.

But that means crowding the staff, cutting the students, and they do have to have some money in order to go ahead with this. Now I equated my statement to the poverty situation.

### HIGH INCIDENCE OF RELIEF

Mr. Chairman, we have thousands of people on relief, thousands of families in that area. In fact, it is one of our highest relief areas in the State. I think of $1,000 per family per year, so that actually what they are asking for is the equivalent of relief expenditure for 690 families for a single year.

In proportion as we bring industry in there, that is the way you are going to finally lick the poverty that we refer to in southern Illinois. I think it is of the highest importance, and so I am glad to accompany Dr. Tudor here and also Mr. Donald H. Gott of the Amercian Walnut Manufacturers' Association, who will probably make a statement of his own.

### Black Walnut Culture

It is a rather interesting national phenomena that most of our black walnut, our American walnut, has been cultured in those six Central States like Illinois, Indiana, Missouri, and Kentucky.

The export of walnut today and the use of walnut in American industry for furniture, and so forth, has now gotten to a rate where if it goes on, let us say, another decade, we are virtually going to be out of walnut.

One of the things that they can do at this school is to dip deep into the field of genetics for a timber supply of that kind for better pruning, for acceleration of growth, and so forth, because today we are using smaller and smaller logs.

There are some 6,000 users and processors of walnut in the country today and they have to realine their industrial and technological process in order to meet it. But the point I emphasize to you, Mr. Chairman, is this: We are asking for the equivalent of what we pay 690 families for 1 year to build this additional laboratory, these greenhouses, and these related facilities. Out of that, I think, will come the durable solution in an intelligent war on poverty.

### Crab Orchard Lake Plant

A new plant was created recently at Crab Orchard Lake in that area largely because they are going to use the resources. That is our hope, because fuels that are competitive with coal, the mechanization of the big mines, have put our mining industry in bad shape down there, and this is one of the self-help things that we can look forward to.

I shall earnestly hope, because of its contribution to the problem of poverty and jobless, that we strive year after year to solve, that you can look with a most sympathetic eye on this problem.

### Need for Program at Southern Illinois University

We need it and we need it badly, and it is going to eventuate in savings of millions and millions of dollars in the form of made work and jobless relief. This is our one hope, and $690,000 is not only a modest amount, it is almost an infinitesimal amount when you stop to consider the ultimate benefits that will result from that.

And so with that, may I present Dr. Tudor of the Southern Illinois University.

I have to go to armed services this morning, so if you will excuse me, I will leave Dr. Tudor in your very good, sympathetic hands.

Senator Bartlett. I shall not say it to you, but to those that accompany you, that the voice of the minority leader, I know, will receive the closest attention of this committee; and I shall say to you, Senator, it is really amazing the fund of knowledge that you possess about this particular subject, especially in the light of all the problems that weigh upon you every day. Thank you.

Senator Dirksen. Thank you.

SOUTHERN ILLINOIS UNIVERSITY

## STATEMENT OF DR. WILLIAM J. TUDOR, DIRECTOR OF AREA SERVICES FOR SOUTHERN ILLINOIS UNIVERSITY AT CARBONDALE, ILL., AND EDWARDSVILLE, ILL.

FOREST SERVICE RESEARCH PROGRAM

Senator BARTLETT. Dr. Tudor, please.

Dr. TUDOR. I think I will follow my usual procedures, Senator, and file my testimony, knowing that you are quite busy.

Senator BARTLETT. That will be acceptable.

(The statement referred to follows:)

Senator Hayden, members of the Senate Subcommittee on Appropriations for the Department of Interior and Related Agencies, I am William J. Tudor, director of area services for Southern Illinois University at Carbondale, Ill., and Edwardsville, Ill.

It has been my privilege and pleasure to appear before this subcommittee several times in the past to present testimony favoring a stronger Forest Service research program. You have always been most courteous to me on these occasions, and I want you to know that I appreciate the increased appropriations you have made available to the Forest Service over the past few years. These funds have enabled them to strengthen forestry research in Illinois and elsewhere in the Nation and to construct some of the laboratories needed to conduct more intensive research.

By training, I am a rural sociologist and have spent many years helping to plan and conduct programs to improve the economy of rural areas such as we have in southern Illinois and many similar adjacent areas. In fact, the past 15 years of my life have been devoted to a war against poverty in the State of Illinois. Thus, I firmly support President Johnson's declaration of war on poverty. My experience has led me to conclude that one of the soundest, most prudent steps we can take to help rural communities find permanent economic strength is to develop and make full use of their renewable natural resources. Forests are one of these resources that are not fully developed and used. Yet they are abundantly capable of making strong contributions to the local communities of distressed areas as well as to our regional and national economic and social well-being.

My purpose in appearing before you today is to recommend that you increase appropriations for U.S. Forest Services activities that will improve the economy of southern Illinois and similar adjacent areas.

It is my recommendation that $690,000 be added to the Forest Service budget for the construction of laboratories, greenhouses, and offices at Southern Illinois University.

In reviewing the President's proposed budget for Forest Service research, I find that no increases are provided for this purpose. Without these essential research facilities our Forest Service scientists will continue to be severely handicapped in their efforts to discover the new forestry knowledge so urgently needed by forest landowners, wood-using industries, and many rural communities in southern Illinois. It is my contention that in most areas of high unemployment, improvement of the forest resources, expansion of wood-using industries, and effective marketing of timber products will be a major factor in the permanent solution of this serious problem. Research is vital to these forestry activities; without it, they will be inefficient and only partially productive.

Just last week I learned with great pleasure that a new wood products plant had been established at the Crab Orchard National Wildlife Preserve. Here, two Federal agencies joined hands with a State university and private enterprise to establish a program that will help in the war on poverty. This is an example of reality of what I have been saying would happen through this important research program. It should give you gentlemen real satisfaction. It does me.

The Forest Service has for over a decade maintained and staffed a research office on our campus at Carbondale. We have furnished, as best we could, and without cost to the Forest Service, offices, laboratories, greenhouses, and similar

facilities for their scientists because we firmly believe in the fine work they are doing. For example, we now furnish a suite of eight offices and an additional classroom in our agriculture building, a building and some facilities for wood-use research, automatic data processing services for many of the studies they conduct, access to our libraries, and other related services.

We have been more than pleased to have Forest Service scientists at our university. Their discoveries have led to better methods of tree planting, of managing forests for improved timber production, of improving forest trees through genetics, of more efficient ways to harvest timber crops, of new and expanded uses of hardwoods, and of greater marketing opportunities for the owners of our timber. Application of these research results has and will continue to help woodland owners and wood-using industries and thus provide employment opportunities in many rural communities. Furthermore, Forest Service employees have made major contributions to our forestry department and research programs. They have fitted nicely into and are a highly valued addition to the university community.

Our university construction program has not been large enough to keep pace with the need for teaching and research facilities. For example, student enrollment in the university has increased from about 4,500 to nearly 18,500 in 10 short years. The enrollment in our forestry department, which was started in 1958, has jumped to 164 declared forestry majors this year. Our school of agriculture was established in 1955, with an enrollment of 204, and this fall the enrollment had expanded to 686 students. This was during a period when most colleges of agriculture were decreasing in enrollment. Release of space now occupied by the Forest Service scientists, through construction of laboratories and offices for them, would be most helpful to the university. It is becoming increasingly more difficult to move regular staff members out of the agriculture building into temporary barracks-type facilities while the Forest Service staff remains in the building. Furthermore, these fine forest scientists squeezed into such cramped quarters are sorely handicapped in their work. I am sure that adequate office space, suitable laboratories, and other research facilities, more modern and specialized than we can furnish, would enable these scientists to do more complete, detailed research that is now required to make important discoveries in forestry.

Congress has recognized the serious need for buildings in our institutions of higher learning by passing the Higher Education Facilities Act of 1963. Also, recognition of the problem has been given through granting funds to land-grant colleges for special buildings. We are in a situation where these much-needed facilities do not fit into either of these programs. In addition, Congress has included funds in Public Law 88–210 for buildings for vocational education programs at the college level. We seem, unfortunately, to fall outside this program too, which fact brings me before this committee.

Now, let me describe briefly for you the proposed research facilities that are needed:

(1) A laboratory with supporting offices and scientific equipment; estimated cost, $580,000: This building would have a gross floorspace of about 15,000 square feet, and contain laboratories and offices equipped for efficient, highly specialized research in forest soils, hardwood tree improvement through genetics, wood utilization, and timber market improvement.

(2) Greenhouses with supporting work area; estimated cost, $75,000: This research facility would consist of two 20-by-60-foot greenhouses with a headhouse for preparing tree research materials. It would be used for genetics research leading to improvement of valuable hardwoods such as black walnut, cottonwood, and yellow poplar. This work requires, for example, controlled pollination and evaluation of hybrids. Complete pollen sanitation is necessary for controlling crossing, just as is closely regulated temperature and humidity.

(3) Hardwood utilization research offices; estimated cost, $35,000: These offices would be for utilization research scientists conducting studies in new uses for hardwoods. The facility would provide about 900 square feet of space. It would be constructed of native timber and thus, in itself, provide research into and demonstration uses of our local hardwoods.

The total combined cost of the research facilities that I have recommended is $690,000—an investment in hardwood forestry research that will be repaid many times over in the future.

If funds are provided for these laboratories, we will work with the Forest Service in selecting suitable locations on university property, provide the land needed without cost to the Federal Government, and assist in all other ways possible.

It has been a pleasure to appear before you again. I am confident that you will carefully consider my recommendations, along with other needs, to strengthen our national program in forestry research.

Thank you.

UNIVERSITY GROWTH

Dr. TUDOR. I would also like to file with you a little booklet that describes the growth of our university to give further evidence of what I say in my statement that we are in a rather difficult position, as far as space is concerned at the university.

Senator BARTLETT. I am going to put this booklet in my pocket right now and thereafter I am going to read it, because I was tremendously impressed when Senator Dirksen said this was a school with 18,500 students. I did not know this. When was it founded?

Dr. TUDOR. It was founded nearly 90 years ago.

Senator BARTLETT. Has your growth in student population occurred chiefly in recent years?

Dr. TUDOR. That is right. I joined the staff nearly 16 years ago; it will be 16 years next June. We had around 3,000 students. We dropped during the Korean episode to about 2,700, then we started growing again very rapidly. We have increased at a rate better than 1,000 a year every year.

Senator BARTLETT. How in the world do you take care of them?

Dr. TUDOR. We use all kinds of temporary facilities. In fact, we have some of our staff in the school of agriculture using old barracks, buildings and houses that were on land that we bought, while we are housing the Forest Service in our agriculture building that was built to take care of these people.

INCREASES IN FORESTRY MAJORS

We feel this program is of such value that we want to see it move ahead and we actually caused some damage in our own program in order to assist the Forest Service with their research program which is so vital to the economy of southern Illinois. We have, as I indicate in my testimony, increased very drastically in both our enrollment in agriculture and in the department of forestry, those majoring in forestry.

So, where many schools of agriculture have been declining in enrollment, we have been increasing very drastically. Our forestry department was not started until 1958, and this fall—and this is majors only—we have 164 students who are majoring in forestry which is, we think, a rather remarkable development.

Senator BARTLETT. I agree to it.

DEGREE OF AGRICULTURE

Dr. TUDOR. In 1955 the State Legislature in Illinois gave us the authority to offer the degree of agriculture. We had but 204 students enrolled at that time. This past fall we had 686 students enrolled in agriculture. So you can see the approach we are following at Southern is one that is appealing to students, and others as well.

We have tried to emphasize three approaches. One is instruction, another is research, and a third is service, which is my part of the university.

We want to thank your committee for including last time some funds for this particular project. We were sorry that the conference committee did not keep those funds available.

Senator BARTLETT. How much are you asking for this year?

FACILITIES FOR HARDWOODS RESEARCH AND TRAINING

Dr. TUDOR. $690,000 is what we need for the project.

Senator BARTLETT. And this is an unbudgeted item, again?

Dr. TUDOR. That is right. It is a complex of buildings that will make for the type of facility that will let us move ahead in providing training and research to develop use of hardwoods in industrial programs in that area.

We had to go clear across the board with this program, because when you look at the management of our forests, which is not very good in that area, we recently set up a training program to train people to harvest the timber in that area.

We found not only a lack of people available who knew how, but also those who did this woodcutting needed special training as well. And this is a way of moving some of these people from our unemployed list.

WAR ON POVERTY IN SOUTHERN ILLINOIS

As the Senator pointed out, we have been waging or own war on poverty in southern Illinois. The county we are located in, Jackson County, is no longer one of the so-called depressed counties. We are no longer eligible for ARA, because of the improvement.

I am not taking credit for that in the university, but I think we have had a hand in helping develop programs to provide help for people so badly in need of it. It is a good program. It is showing results as the Senator pointed out.

We had a new industry locate just a few weeks ago at the old Crab Orchard ordnance plant area completely as a result of this particular program.

This is not the only one, but they are happening every day. That is why I mentioned this particular project. I appreciate your courtesy and your patience. We appreciate all you have done for us in the past.

EFFORTS AND APPRECIATION

We hope we have justified the faith your committee has shown in us, because we feel we have tried at least to come up with the things that we said we would do when you have granted us funds in the past.

It is a pleasure to appear before this committee. We have received courteous attention, both on the part of the committee and the staff and it makes you feel real good when you meet with the committee.

Senator BARTLETT. Thank you, Dr. Tudor. You have made a fine appearance.

Senator Stennis.

FOREST SERVICE

## STATEMENT OF HON. JOHN STENNIS, U.S. SENATOR FROM THE STATE OF MISSISSIPPI

LABORATORY AT OXFORD, MISS.

Senator STENNIS. I am not going to ask to testify. I would like to note that in addition to testimony I gave here last week regarding a laboratory at Oxford, Miss., having to do with forestry research of a special kind, that you have on your rostrum today witnesses in the name of Mr. Billie Ross Brown, of Oxford, who will testify with Mr. Walter Myers, who will be here around 11 o'clock, as I understand.

Also with Mr. Brown is Mr. R. K. McLean. This is with reference to a laboratory which has been urged upon the Budget Bureau by the authorities in the Foresty Service more than once. It is one they give a very high priority to, although for this particular year it is not in the budget.

I back up everything Mr. Brown will say and would like to point out, too, that this is a project that is locally supported to the fullest extent.

LAND RECLAMATION THROUGH FORESTRY

This laboratory will be especially concerned with land reclamation through forestry. I want to, again, call it to the special attention of the subcommittee and wish I could stay here and hear this testimony.

Senator BARTLETT. Thank you very much, Senator Stennis. We will hear the witnesses with more attention, because of your prior appearance and your special interest. Thank you.

Senator STENNIS. Thank you very much, Senator.

Senator BARTLETT. Congressman Teague accompanied by Mr. Radford.

FOREST SERVICE

## STATEMENT OF HON. CHARLES M. TEAGUE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

NATIONAL FORESTS

Mr. TEAGUE. Thank you, Senator. I will be brief and I am sure it will be satisfactory for Mr. Radford to present his statement. I am Charles M. Teague of the 13th Congressional District in California, which is to say that one of my counties is Ventura County.

There are eight counties in southern California in which four national forests are located. Los Padres National Forest is in my congressional district. However, I appear here this morning, you might say, as a spokesman for the 11 million people in southern California who are in the area where these four national forests are located.

FIRE PROBLEMS AND FLOOD CONTROL

The officials of the Watershed Fire Council of California have convinced me that they have a very meritorious case. Now this watershed fire council consists of public-minded citizens in southern California who are very much concerned about the national forests, particularly with fire problems and also flood control, all problems related to our national forests.

HOUSING OF PERSONNEL AND EQUIPMENT

This committee has been very wise, I think, in the past in dealing generously with its treatment of these forests. This year, as I understand it, Mr. Radford will elaborate a little bit; all that we are asking is some additional funds to increase the housing of personnel and equipment.

We have pictures indicating—to me, anway—that this is very substandard. These houses have outlived their usefulness and you, of course Senator, being from the West, know how important it is to have good people in our forests, to keep them there.

In order to do so, we certainly do not overpay them, and we ought to provide them with decent living quarters. Our request is for $195,000, in addition to the budgeted amounts, which would be devoted to the housing of personnel and equipment.

With that, sir, may I be excused? You can either ask Mr. Radford to elaborate now, or later.

Senator BARTLETT. Thank you very much, for your appearance, Congressman. We are glad to hear you and I think we will go ahead and hear Mr. Radford now.

Mr. TEAGUE. Thank you.

WATERSHED FIRE COUNCIL OF SOUTHERN CALIFORNIA

## STATEMENT OF ROBERT T. RADFORD, PRESIDENT

FIRE LABORATORY, RIVERSIDE, CALIF.

Mr. RADFORD. Mr. Chairman, this happens to be my 10th year of coming back here in regard to our problems. I am going to elaborate on my statement. I heard Ed Cliff say at the dedication of the fire laboratory in Riverside that 50 percent of all our acreage lost has been in the southern California forests.

Senator BARTLETT. Is that the whole national forest structure throughout the country?

Mr. RADFORD. Outside, of course, of the fires you have in Alaska which are now national forests.

FUNDS REQUESTED FOR HOUSING

What the Congressman has said is true about our watershed fire council. I happen to be the president of it and have been for many years. I am not going to elaborate very much on what it has to say here, except the fact that we have appeared here year after year, and what we are asking for now is the balance of a request for supplemental funds. This can be used simply for housing.

There is a statement from the watershed fire council. I happen to be chairman of the Los Angeles Watershed Commission which is appointed under an ordinance of the county which has the same objectives as does our council, except that it is confined to one county.

I want to pass this across. I am going to leave it with you, but I just want to review it with you.

Senator BARTLETT. That and your statement will be be placed in the record.

(The statements referred to follow:)

### National Forests of Southern California, Fire Protection Needs

Representing some 11 milllion people in 8 counties of southern California, the Watershed Fire Council of Southern California is a group of appointed and elected citizens organized to help reduce fire losses in the 4 national forests situated within their region. These are the Los Padres, Angeles, San Bernardino, and Cleveland National Forests.

Since its formation in 1954, the Watershed Fire Council of Southern California, in cooperation with Federal forest officials, has conducted extensive studies into causes and possible solutions of fire disasters in this region, and has presented to Congress a program explaining the need for increased funds for fire protection in these four national forests as set forth in the 10-year comprehensive fire protection plan.

Historically, the fire hazard has beset forest areas because of climatic conditions peculiar to this region. Extreme high temperatures, long periods of drought, hot winds from adjoining desert regions, and low humidity are characteristics of this area.

Congress has allowed substantial funds for improving fire protection in southern California, but we are still behind the stated minimum need of $2,375,000 annually as designated in the 1954 request.

An additional appropriation of $195,000 will be necessary this year to bring these forests up to the minimum that was established by the Forest Service officials 10 years ago. At the present time, through the use of present firefighting methods and techniques, we feel great progress has been made in the protection and maintenance in these forests. The one notable exception is the woefully inadequate housing for men and equipment used to protect these forests.

It is the feeling of our Watershed Fire Council that the additional amount of $195,000 should be added to help alleviate the substandard housing of the four southern California national forests.

In closing, we urgently petition this committee and the Congress to:

(1) Provide for the appropriation of the necessary additional funds of $195,000 in the 1964–65 fiscal year budget. These funds would be used for the specific purpose of replacing the substandard housing now provided for the U.S. Forest Service personnel within the four southern California national forests.

(2) Appropriate the necessary funds to continue the program for the national forests.

(3) Appropriate the necessary funds to implement a program of structural improvements within all the national forests of the United States including fire protection facilities and fire personnel quarters.

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### Angeles National Forest, Los Angeles—California Fire Protection Needs

For the past 10 years, a cooperative program has been carefully developed and nurtured to bring together the resources of the Federal Government and Los Angeles County in order to provide adequate fire protection and to preserve the watershed areas of the Angeles National Forest.

This program began with the formation of the Los Angeles County Watershed Commission in 1954, and it has progressed substantially over the past 10 years. However, there are two significant factors of a permanent nature—climate and population growth—which are directly related to the fire hazard problem of this region.

The Angeles National Forest is located in a climate which suffers long periods of drought, hot winds from adjoining desert regions, and low humidity. Because of the unprecedented population growth common to all of southern California, the Angeles National Forest is committed to extremely heavy recreational use, and residential areas have been extended into the wooded areas and mountain watershed areas adjacent to the forest boundaries.

Of equal significance is the fact that the Angeles National Forest region is a primary watershed for Los Angeles County, serving the water needs of the majority of the 74 cities within the county.

To demonstrate the willingness of local people to cooperate, studies have been conducted and programs have been outlined. The Los Angeles County Board of Supervisors has adopted a comprehensive fire protection program for foothill areas of the county and the Angeles National Forest covering the next 10-year

period. They appropriated the necessary funds to initiate this program. Under this plan, the county will provide a total of $5,238,950 of local funds for this program during the next 10-year period.

As recommended by the U.S. Forest Service, the 1954 program called for an annual appropriation of $2,375,000 special protection and maintenance funds to be used in providing essential firefighting equipment, maintenance materials, and manpower to protect the lives and properties of more than 11 million people in southern California.

An additional appropriation of $195,000 will be necessary this year to bring these forests up to the minimum that was established by the Forest Service officials 10 years ago. At the present time, through the use of present firefighting methods and techniques, we feel great progress has been made in the protection and maintenance in these forests. The one notable exception is the woefully inadequate housing for men and equipment used to protect these forests.

It is the feeling of the Los Angeles County Watershed Commission that the additional amount of $195,000 should be added to help alleviate the substandard housing of the four southern California national forests.

In closing, we urgently petition this committee and the Congress to—

(1) Provide for the appropriation of the necessary additional funds of $195,000 in the 1964–65 fiscal year budget. These funds would be used for the specific purpose of replacing the substandard housing now provided for the U.S. Forest Service personnel within the four southern California national forests.

(2) Appropriate the necessary funds to continue the program for the national forests.

(3) Appropriate the necessary funds to implement a program of structural improvements within all the national forests of the United States including fire-protection facilities and fire personnel quarters.

### Los Padres Prevention Stations

Mr. Radford. I would like to go over a couple of these things. Here is Los Padres. The first picture is where we have a prevention station. And here is another prevention station of Los Padres, and this one, a two-man station, in the last year housed four men.

### Cleveland National Forest Facilities

Now you turn over here and you see the Cleveland National Forest which is some surplus Marine Corps desert huts. I call your attention to the fact that they have to have tarpaulins on the roof to keep them from leaking. The shower room that they have in that forest at that point is one of the old CCC's from 1933.

### San Bernardino National Forest and Angeles National Forest

Then we turn to some pictures from San Bernardino National Forest and those are 1934–35 structures. Then we come to the Angeles National Forest, which is all in Los Angeles National Forest, which is all in Los Angeles County, and on page 3 you will see some equipment.

There are some $30,000 to $35,000 worth of equipment that is housed 365 days in the year under an oak tree. We have no building for it.

Then, as you turn over, I would like to call your attention to this camp which is an old CCC camp which has tar paper on the outside to keep the wind out. I hate to bring this up to you, Senator, but do you see those stairs there on the side of the house?

The Los Angeles County Safety Department came out to the forest area and we had 1 door in that place to take 40 men out. They

made them put some doors in. I am a little ashamed to say that that was necessary.

TEXAS CANYON STRUCTURES

Now on the last page are some pictures here of the Texas Canyon structures. They are surplus Marine little sheds there.

Senator BARTLETT. It is obvious that none of these dwellings are going to receive prizes.

Mr. RADFORD. No, they are not. And to top that off, may I call your attention to these two little ones. They charge the workers $6 a month to live in them. They charge the foreman $18 a month and he furnishes his own facilities.

It is one of these things. I think maybe there are some people out of work and so on. I know there are, but the point is here is an enterprise which would be permanent for the Forestry Service.

BUDGET REQUEST FOR HOUSING

Senator BARTLETT. Is there any money in the budget for any houses at all?

Mr. RADFORD. I went and saw the Bureau of the Budget and the man there said that he would approve it if it was in. Now I cannot tell you. I have never been able to get one of the copies of the budget.

Senator BARTLETT. It is available, but it is awfully thick.

Mr. RADFORD. I know. I would rather do the thing that we have done before. If it is in there, it will go through. If it is not in there, then we kindly ask you to put it in.

Senator BARTLETT. You want it in?

Mr. RADFORD. Yes, sir.

Senator BARTLETT. Thank you, Mr. Radford.

Mr. RADFORD. Thank you, and I am very appreciative.

## NATIONAL CAPITAL PLANNING COMMISSION

## STATEMENT OF NATHAN POVICH MENSH, WASHINGTON, D.C.

RELOCATION OF BUSINESSES

Senator BARTLETT. Senator Young, I believe you are here with Mr. Mensh.

Senator YOUNG. Yes. Do you have anyone with you, Mr. Mensh?

Mr. MENSH. Mr. Gallo and Mr. Trepagnier from the Wax Museum.

Senator YOUNG. I know Mr. Mensh, who runs a carwash down in this area that is going to be acquired. I visited with him several times about his problem. The Government is going to acquire his land. I told him I thought the best thing for him to do is to appear before this committee and present his case. That is the reason why he is here today and some of the other witnesses also.

Senator BARTLETT. We will be glad to hear from all of you.

RIVERSIDE CARWASH

Mr. MENSH. Mr. Chairman, members of the committee, my name is Nathan Povich Mensh. I am 30 years of age, and I own the Riverside Carwash, at 523 New Hampshire Avenue NW.

I have a 10-year lease, expiring on May 21, 1969, which gives me over 5 years left on the lease. In my lease I have given up the right

to any claim to any compensation paid to my landlord, Heurich Properties, Inc., in the event of a Government taking of the property.

I have spent approximately $45,000 in equipment alone, and I submit to you as proof a copy of the cost of an exact installation such as mine.

I employ a minimum of 10 men with approximately 25 dependents, and my payroll, excluding myself, is approximately $25,000 a year.

I have worked hard for the past 5 years, having taken over a faltering business, and I have spent much time, money, and patience. I now have a successful business, along with a home, a wife, and two children, just to mention a few of my obligations.

Now a proposal is before you that might take everything from me, with no allowance for just compensation. So I sit here, gentlemen, with my hat in my hand appealing to you for just compensation in the event that the Government takes my business from me.

### Relocation Cost Payments

I would also like to add that if this move is necessitated, compensation could be awarded at such time to allow for the seeking out of a location without an interruption in business. Otherwise, considerable hardship would be involved pertaining to loss of business, loss of revenue to my employees and their families and to myself and my family.

You hold the key to my future, physically and financially, so I appeal to you for your utmost and careful consideration.

Senator Bartlett. Thank you, Mr. Mensh. Do you have a question, Senator Young?

### Compensation for Losses

Senator Young. The Government does not offer you anything for the loss of your business?

Mr. Mensh. No, sir.

Senator Young. You have to move to another location at your own expense?

Mr. Mensh. Yes, sir.

Senator Bartlett. Has the Government talked to you at all?

Mr. Mensh. No, sir.

Senator Young. It may be the law, but it seems to me a pretty cruel way of doing business.

Mr. Mensh. May I say something, sir?

Senator Bartlett. Certainly.

Mr. Mensh. I called up Mr. Daniel Shear in the National Capital Planning Commission.

Senator Bartlett. He is the General Counsel.

Mr. Mensh. And he said there is no provision to do anything for the people on the property.

Senator Bartlett. Did he indicate to you that some effort would be made to bring into being such a provision?

Mr. Mensh. No, sir.

Senator Bartlett. He just said nothing doing?

Mr. Mensh. Nothing, yes, sir.

PROPERTY ACQUISITION PROGRAM

Senator YOUNG. Mr. Chairman, I asked some questions of the National Capital Planning Commission with respect to the acquisition of the property. They were included in the record at the time the Commission presented its budget. Their responses bear out Mr. Mensh's testimony. I think that is all I have at this time.

Senator BARTLETT. Thank you. On the same subject, Mr. Trepagnier.

HISTORIC FIGURES, INC.

## STATEMENT OF HENRY L. TREPAGNIER, JR., SECRETARY

NATIONAL HISTORIC WAX MUSEUM

Mr. TREPAGNIER. My name is Henry L. Trepagnier, Jr., and I am secretary of the Historic Figures, Inc., which operates the National Historic Wax Museum, one of the tenants of the land to be taken under request of House Document 228. This is the third item of $2 million for the National Capital Planning Commission.

With reference to the question I believe Senator Young raised, I have been working on this and raised the same question which Mr. Mensh raised with the National Capital Planning Commission.

I also attempted to have some provision put into the authorizing act with respect to this matter. However, due to the speed with which the Senate passed the authorizing bill, it was unfortunately impossible to get it.

RELOCATION COST PAYMENTS

There is authority under the Redevelopment Land Agency Act to pay tenants which are on land to be taken by the Government. Unfortunately, according to Mr. Shear, there is no provision for the National Capital Planning Commission so to do.

I have not given up efforts to have some sort of an authorization either by the House or the Senate, which would provide the National Capital Planning Commission with the authority to pay relocation costs for this particular area.

Senator YOUNG. Did I hear you correctly that another agency of the Government, if acquiring property, could come to you and pay?

REDEVELOPMENT LAND AGENCY

Mr. TREPAGNIER. Yes, sir. The Redevelopment Land Agency, as a result of the Slum Clearance Act of 1952, has authority to pay up to $20,000 to tenants. If I may digress a little bit, in Washington, D.C., no attorney who is any good will allow a client to sign a lease without a provision that the tenant may not participate in any condemnation proceedings.

All leases involved here state that position. That is, that no tenant may participate in any condemnation award. Our lease, incidentally, expires in 1967.

Senator YOUNG. You have a very popular place down there. A lot of people come there and want to see your place.

Mr. TREPAGNIER. Last year we had 487,000 visitors. Since 1958 we have paid over $208,000 in taxes to the Federal and District Governments, and expect this year, if we are allowed to remain there at

least through the year—which is another point I would like to talk about—we will estimate our payments and taxes as about $64,000 this year.

RELOCATION COSTS

Senator YOUNG. How much would it cost you to move to another site?

Mr. TREPAGNIER. Senator Young, it would cost us a minimum of $100,000. We have spent since 1958 working with the Southwest redevelopment—we were accorded a secondary priority down there about 1958 with the group.

We were planning to move into the area. There were plans drawn. In fact, some $50,000 was spent by a group which has now gone out of the window because it could never work out anything.

RELOCATION IN SOUTHWEST REDEVELOPMENT

As late as last August, we were working with the Southwest redevelopment for a parcel of land which we were either willing to purchase or lease, and the Highway Department never could make up its mind.

As late as December, we were told they could not make up their mind. We started to make an offer on another parcel of land, and they told us it would take 18 months to wind up details and have our building built.

JOHN F. KENNEDY CENTER FOR THE PERFORMING ARTS

We cannot wait that long. Since last December the Congress started considering matching funds for the John F. Kennedy Center for the Performing Arts and, of course, in January it was enacted into law. It leaves us possibly until December of this year, if I read the letter of Mr. Edward Stone, the architect, which was submitted at an earlier hearing this week, in which he said that final drawings would be completed in October of this year, and construction probably could begin late in December of this year.

RECOMMENDATION ON RELOCATION TIME

I would like to ask that this committee enter some sort of a recommendation such as was made in 1958 when this act originally was passed in which there was an exchange on the floor of the Senate between Senator Monroney and Senator McNamara.

I believe yesterday Senator Monroney referred to that language. I would like to reiterate: Please, somehow, work out that type of language to assist us.

Senator YOUNG. In effect, what did the language do?

Mr. TREPAGNIER. It said that we could remain on the site until construction made it necessary to move us. You see, we are in a slightly different position from the others in that our best season is through the summer. If we do not have our doors open through the summer, we will suffer a terrific loss each year.

Our costs run quite high.

PERSONNEL

Senator BARTLETT. How many people do you employ?

Mr. TREPAGNIER. We employ from 20 to 25 people, sir. Our yearly costs run around $200,000. The cost of operating the museum

is around $200,000 a year. To go back to your point, Senator Young, the question of authorization, I believe, is the serious one here.

RELOCATION COSTS FUNDS

There is nothing in the act which authorizes the National Capital Planning Commission to allocate any funds or request any funds. And, if I understand it, there is not request for any funds for relocation costs.

Senator YOUNG. Without authorizing the legislation, if we attempt to take care of that problem here, it would be legislation on an appropriation bill, subject to a point of order. It has been done, but you do not very often get by with it. But I think you folks have an awfully good case. I just cannot see any justice in the Government taking property from the people and causing them to lose that money that all of you folks will. There just is not any justice to it.

Mr. TREPAGNIER. Senator, if you can suggest a way to me by which I can proceed, I will be very happy to follow it out.

AUTHORIZATION FOR RELOCATION FUNDS

Senator BARTLETT. Have you gone to the Legislative Committee?

Mr. TREPAGNIER. No, sir. I have not since December. In December I spoke with the Public Works Committee, and at that time the committee in the House, particularly, was especially anxious that their bill conform to the Senate bill. Therefore, they were not anxious to have any amendments.

As you remember, on the floor of the House they beat down all amendment requests. And since then, I have been trying to work at something, but not being familiar, it is a little difficult. There may be a way of amending some bills, perhaps in the District of Columbia Committee. I do not know.

Perhaps some legislative expert might give me some assistance on this.

COMMITTEE SYMPATHETIC TO PROBLEMS

Senator YOUNG. I am sure this committee is sympathetic to your problem and will give it some thought in trying to help you.

Senator BARTLETT. Thank you very much.

Mr. Gallo, please.

DIPLOMAT GARAGE

## STATEMENT OF GIULIO GALLO

RELOCATION PROBLEMS

Mr. GALLO. Mr. Chairman and members of the Appropriations Committee, my name is Giulio Gallo and I am engaged in the general automobile repair business under the name of Diplomat Garage at 523 New Hampshire Avenue NW., Washington, D.C. This location is within the area of the proposed construction of the John F. Kennedy Cultural Center. By reason thereof, I am threatened with the requirement of vacating and relocating my business at another location.

I have been a tenant in my present location for a period of 7 years. While I do not have a lease, I have an understanding with the owners that I might remain on indefinitely and there is every reason to believe

that, except for the threatened eviction due to the erection of the Cultural Center I would continue to be there for a number of years. I employ 6 men who have a total of 12 dependents, and they are threatened with loss of employment.

### Equipment and Labor Investment

When I took over the building that I now occupy it was in no condition for the operation of an automobile service station and I bought equipment and performed personnally a great deal of labor to equip the building with machinery for the purpose of doing the work incident to an automobile repair business, and also made a number of alterations in the building itself to adapt it for the purpose. I consider my investment, including my own labor, to be of a value of approximately $25,000.

Most of the equipment and the labor for installing it and the alterations to the building will be almost a total loss in the event I am required to move to another location.

### Relocation Costs

I also have a great amount of equipment which is movable and which might be moved to another location in which event I would have the expense of removal. The removable equipment is not included in the figure above mentioned which I consider would constitute my loss in the cost of replacing the equipment in a new location and making a new location suitable for an automobile repair business, as I have now.

I have a list of the equipment and its estimated value making up the total of the $25,000 figure which I will be glad to exhibit to the committee if the committee so desires. The aforementioned list includes the cost of moving and relocating equipment at a new location.

### Anticipated Loss of Business

I also anticipate loss of business due to relocation, and if necessary to move to a new area will undoubtedly lose a number of my present customers, whose places of business are in the vicinity of my business. I am, however, making no claim for this loss of business.

There are other small businesses in the immediate area who will likewise suffer damages and loss by the threatened eviction from their present places of business.

The business which I operate is my only source of income and provides my only livelihood for myself and my family and the only means of livelihood for my employees and their families.

### Compensation for Losses

I earnestly request this committee to give consideration to the threatened losses which both I and the operators of other small businesses in the area will suffer by a forced relocation, and request that adequate provision be made in the existing law to compensate me and the operators of the other small businesses for the losses which we are confronted with.

Senator Bartlett. Thank you, Mr. Gallo. The list of equipment and alterations and the figures which you attached to your statement will be included in the record.

(The document referred to follows:)

*List of the equipment and alterations in the building occupied by Diplomat Garage including the cost of moving and relocation*

| | |
|---|---|
| 1 steel deck and lunchroom with 488 square feet | $3, 500 |
| 3 heavy-duty truck and car lifters (hydraulic and automatic), $3,200 each | 9, 600 |
| 1 air pressure system with 170 feet of pipes and lines—2 air tanks, 18 valves and 3 safety valves, filters, regulators, brackets, etc | 1, 400 |
| 1 plumbing installation with 2 sinks, 155 feet of piping, 16 valves and faucets, supports, etc | 800 |
| 1 fumes and gases exhaust system with 55 feet of metal ducts and 70 feet of rubber hoses, brackets, etc | 450 |
| 9 hoist hangers installed on ceiling | 250 |
| 1 heater system with 75 feet of gas pipes, 40 feet of 6-inch-diameter ducts and chimney, supports and controls | 800 |
| 1 air-conditioning system with water installation for cooling type | 700 |
| 1 complete electric installation for 21 electric motors totaling 200 amperes and 25 horsepower using approximately 600 feet of cables | 3, 500 |
| 3 concrete areas, cemented outside wall, 1 outside sewer drain | 1, 200 |
| 6 wall shelves | 120 |
| 2 outside signs with steel pole and brackets | 800 |
| Moving expenses and relocation of heavy machinery—2 lathes, 1 drill press, 3 grinders, 2 welders, benches, shelves, jacks, horses, battery chargers, special tools and others | 2, 400 |
| Total | 25, 520 |

Senator BARTLETT. Do you have any questions, Senator Young?

Senator YOUNG. No; did you present your figures, Mr. Mensh?

Mr. MENSH. No, sir; I presented the statement.

Senator BARTLETT. Mr. Eaton informs me that at the start of the session permission was granted to insert all of these.

Mr. Immer, please.

FISCAL RELATIONS AND TAXATION COMMITTEE
FEDERATION OF CITIZENS ASSOCIATIONS OF THE DISTRICT OF COLUMBIA

## STATEMENT OF JOHN R. IMMER, CHAIRMAN

QUESTION OF PROJECT SITE

Senator BARTLETT. You might want to put the statement in in its entirety and summarize it.

Mr. IMMER. I will not read the statement. I will submit if for the record and make a brief statement in reference to the drawing that I have prepared here for the committee.

(The statement referred to follows:)

SITE FOR THE JOHN F. KENNEDY CENTER FOR THE PERFORMING ARTS

This statement has been prepared by John R. Immer, president of the Dupont Circle Citizens Association in response to concern expressed by that association on February 3, 1964, about the proposed Potomac River site for the John F. Kennedy Center for the Performing Arts. At its regular meeting of that date the association expressed its opposition to appropriations for additional land for the Potomac River site and urged a study of the site with a view of having it relocated within the downtown area with particular reference to Pennsylvania Avenue.

On February 13, 1964, the Federation of Citizens Associations of the District of Columbia expressed its opposition to the appropriation of additional funds for land for the Potomac River site. On February 14, 1964, the Committee of One Hundred on the Federal City also opposed the appropriation of additional money for this site until a study has been made for an alternate location in the downtown area.

Members of the above three organizations are concerned about the future success of the Center for the Performing Arts in a location so far from the down-

town center and so isolated. Such a location would put it out of reach of millions of visitors each year who stay in downtown hotels and who need evening activities. Such a location would further contribute to the deterioration of Pennsylvania Avenue and the downtown area about which our late President expressed his concern and interest.

The area on the river has been flooded 10 times in the last century. The Potomac River valley has never had a real cloudburst such as destroyed parts of Connecticut a few years ago. However, cloudbursts of 10 inches or more are not impossible in this area. Smethport, Pa., had over 30 inches in 1 day in 1942 and Rockport, W. Va., had 19 inches in a little over 2 hours in 1889. In 1956 Unionville, Md., had 1.23 inches in 1 minute.

As far as we can discover, no engineering study has been made of the site from a standpoint of flooding or of the foundation. A review of the foundation under the Lincoln Memorial will show this committee what problems can be anticipated in this area. I cannot find that this has been considered.

The original statutory site included only 7.7 acres. There is no authorization for the additional 10.8 acres now called for. The original legislation assured Congress that only $650,000 would be needed for additional land. It is doubtful that this requested appropriation will cover all the land now stated as needed for the project and there is no assurance that this request will be the last.

What is the legal justification for this appropriation? Has the extra land been authorized by Congress? Can this land be used for park purposes other than for the Cultural Center? Will the public have access to these park lands? The 18.5 acres now demanded is more than the Lincoln Memorial, the Jefferson Memorial and the Washington Monument put together. It is every bit of available park and recreation land on that section of the east bank of the Potomac. A sunken roadway for the park road will make it unusable in high water and flood conditions.

The entire project has been sold on the basis of a "parklike setting." Gentlemen, there is no parklike setting on this site. To the east you have a highway within fifty or a hundred feet that rises 20 feet or more above the veranda. To the south you have the Roosevelt Bridge and its approaches. To the north you have Watergate Town rising 130 feet high and across the inner loop you have Columbia Plaza also with nearly 130-foot elevation. The building line for the Watergate Town is only 270 feet from the north side of the Cultural Center. What kind of a parklike setting is this? This will be one of the most congested areas in Washington; and one of the most difficult to get to.

I can assure you that the organizations for which I am speaking have a very great interest in seeing that the Cultural Center, so large, constructed in our midst, will be a success and will be contributing to the cultural life of the Nation a decade or a century from now. We do not think this is likely in such an isolated location.

The organizations whose views I am expressing here are strong supporters of the John F. Kennedy Center for the Performing Arts. Our principal concern is that it be in a location which will be most conducive to its successful operation for many years to come and that this location will permit it to make a maximum contribution to the cultural and social life of the Capital City and the Nation. We believe that only a downtown location will accomplish this and we are fearful of the future of the Center on an isolated site on the Potomac River.

JOHN R. IMMER,
*President, DuPont Circle Citizens Association, Chairman, Zoning Subcommittee, Committee of 100 on the Federal City, Chairman, Zoning Subcommittee, Federation of Citizens Associations, District of Columbia.*

NEW SITE FOR THE JOHN F. KENNEDY CENTER FOR THE PERFORMING ARTS

A resolution passed by the DuPont Circle Citizens Association of Washington, D.C., on February 3, 1964.

Whereas the proposal to erect a John F. Kennedy Center for the Performing Arts should result in a working monument to our late President and one that should be a national center for cultural activities;

Whereas such a monument is a major addition to the cultural and social amenities of the Nation's Capital City;

Whereas such a monument will have a major impact on the cultural and social activities of the city with particular regard to the downtown area, the redevelopment of Pennsylvania Avenue, and the reorientation of the interests of millions of citizens who visit the Capital City from all over the Nation;

Whereas the present site is subject to flooding, involves a $15 million parking garage which will serve no other purpose to the city or the Federal Government,

will not earn any parking fees to help pay its cost, is surrounded by a maze of highways, is subject to fumes, noises and other distracting influences, does not have public transportation available to it; and

Whereas there is no possibility for expansion of the site: Now therefore,

*The DuPont Circle Citizens Association, at its regular meeting in February 3, 1964, now hereby resolves,* To request the President of the United States to appoint a Presidential Commission to select a site closer to the center of the city in the downtown area with particular reference to the future development of Pennsylvania Avenue;

*And,* That copies of this resolution be sent to the chairmen of the Public Works Committees of the Senate and the House, the Fine Arts Commission, the National Capital Planning Commission, the American Institute of Architects, the Committee of 100 on the Federal City, the Federation of Citizens Associations and the National Cultural Center.

DUPONT CIRCLE CITIZENS ASSOCIATION,
JOHN R. IMMER, *President.*

NEW SITE FOR THE JOHN F. KENNEDY CENTER FOR THE PERFORMING ARTS

A resolution passed by the Federation of Citizens Associations of the District of Columbia on February 13, 1964

Whereas the site of the John F. Kennedy Center for the Performing Arts is away from public transportation and the center of the city, is subject to flooding, and has other elements which threaten the solvency of the project over a period of years; and

Whereas additional sums of $3.3 million are being requested to buy more land for the Center which will come out of park and playground funds for the District of Columbia or out of Capper-Cramton Park Funds.

Now, therefore the Federation of Citizens Associations of the District of Columbia, at its regular meeting on February 13, 1964, resolves to oppose in the strongest possible terms the granting of any additional sums for the site of the Cultural Center on the Potomac and resolves that a new site be considered for the John F. Kennedy Center for the Performing Arts. The federation further resolves that copies of this resolution be sent to the Public Works Committees, the Appropriations Committees, and the District of Columbia Committees of the Senate and the House, to the National Capital Planning Commission, the Fine Arts Commission, and to the trustees for the John F. Kennedy Center for the Performing Arts.

NEW SITE FOR THE JOHN F. KENNEDY CENTER FOR THE PERFORMING ARTS

A resolution passed by the Committee of 100 on the Federal City of the American Planning & Civic Association on February 14, 1964, Washington, D.C.

Whereas the site of the John F. Kennedy Center for the Performing Arts is away from public transportation and the center of the city, is too far from the downtown area, involves a difficult parking problem, does not contribute to the downtown area, and has other elements which threaten the solvency of the project over a period of years; and

Whereas additional sums of $3.3 million are being requested to buy more land for the Center which will come out of park and playground funds for the District of Columbia or out of Capper-Crampton Park funds, and

Whereas Congressmen Kyle and Widnall have introduced legislation providing for a study of the best site in a downtown location with special reference to Pennsylvania Avenue.

Now, therefore, the Committee of 100 on the Federal City at its regular meeting on February 14, 1964, hereby resolves to oppose the granting of any additional sums for the site of the Cultural Center on the Potomac River until a further study has been made of the downtown site. It further resolves that copies of this resolution be sent to the White House, the Public Works Committees, the Appropriations Committees, and the District Committees of the Senate and the House, to the National Capital Planning Commission, the Fine Arts Commission, and to the trustees for the John F. Kennedy Center for the Performing Arts.

CORPS OF ENGINEERS,
*Baltimore, Md., February 26, 1964.*

Mr. JOHN R. IMMER,
*President, DuPont Circle Citizens Association,*
*Washington, D.C.*

DEAR MR. IMMER: Your letter of February 6, 1964, to the Chief of Engineers regarding the John F. Kennedy Center for the Performing Arts has been referred to this office for reply.

An early proposal for the Center was the subject of a public notice dated January 19, 1961. Since the project proposed at that time would have extended into the Potomac River, its sponsors applied for a permit as noted on the enclosed notice. It is understood that plans subsequently were revised in such a manner as to not require a permit. Revised plans are not on file in this office.

We have not assured the trustees of the project that there is no danger of flooding at the site, nor have we been asked to advise regarding the parking area problems.

Data regarding flood elevations of the Potomac River are noted on the public notice and may be helpful to you in this regard.

Sincerely,

WAYNE W. BRIDGES,
*Lieutenant Colonel, Corps of Engineers, Deputy District Engineer, Baltimore District.*

[From the Washington Post, Feb. 18, 1964]

FREEWAY TWISTS NEAR KENNEDY CENTER

Construction of the west leg of the Inner Loop Freeway through Foggy Bottom has proceeded far enough to observe its relationship with the John F. Kennedy Center for the Performing Arts.

The closest ramp of the maze in that neighborhood passes within half a block of the apparent edge of the Center building, as indicated by the two photographs below.

The panoramic view was taken from an approach ramp to the Theodore Roosevelt Bridge. The lower picture was taken from E Street NW., indicated by the arrow in the larger photo.

This closeness of the cultural facility and the freeways has aroused second thoughts among some official and unofficial backers of the Center.

The question was raised openly last week by the Committee of 100 on the Federal City, a blue-ribbon civic group which also feels the Center should be built where it would lend vitality to downtown Washington.

Similar thoughts have been attributed to members of the Kennedy Center's board and other officials close to the project. The alternative location most frequently mentioned would be on Pennsylvania Avenue.

Defenders of the present site feel the dramatic riverside location northwest of the Lincoln Memorial was one of the selling points for the Center in both the public and congressional campaigns.

They also contend that things have gone too far in land purchasing and design work to turn back now.

HIGHLIGHT STATEMENT

Mr. IMMER. My name is John R. Immer. I am presenting statements on behalf of the Dupont Circle Citizens Association, the Federation of Citizens Associations of the District of Columbia, the Committee of 100 on the Federal City, and the Washington Building Congress.

The proposed structure is 700 feet long and 530 feet wide and comprises 8.6 acres. The only authorizing legislation for this site includes only 7.7 acres. No additional land has been authorized by Congress.

ENGINEERING OR USE STUDY

I raise a question of financial responsibility for Government funds when Congress appropriates $30 million for a project on which there has been no engineering study and no study of the market or projected use of the project.

DANGER FROM FLOODING

I refer you to the attached letter from the Army Corps of Engineers which states that they have not assured the trustees of danger from flooding nor have they been asked to advise regarding the parking area problems. This letter is enclosed in its entirety.

In fact, that paragraph says:

We have not assured the trustees of the project that there is no danger of flooding at the site, nor have we been asked to advise regarding the parking area problems.

PROJECTIONS OF ATTENDANCE EXPECTED

Has this committee received any projections of attendance expected at these concerts and operas to be presented? Does it know of any independent studies that have been made to ascertain this? I do not think it does. I ask that this committee defer action until the above studies have been made.

LAND ACQUISITION LEGISLATION

Gentlemen, this is not a request for funds to provide a "parklike setting." The request is for funds to acquire land on which the structure itself is to be built. This is legislation in an appropriation bill and is subject to a point of order.

Such a point of order will undoubtedly be made if this matter is not cleared up before it is presented before the Senate and the House by one or more of your colleagues.

ROADWAY AND OVERPASS

I understand that the roadway coming at this point, that the concrete will be within 26 feet of the corner of the veranda. The large overpass you see there will be within approximately 100 to 150 feet of the corner of the veranda and will be at least 20 feet higher than the veranda.

I did not put in this drawing what I wish I had done, and I do have this included in another enclosure here. I cite in the enclosure an artist's drawing showing Columbia Plaza which is just the other side of the interloop and would be on this section right here.

COLUMBIA PLAZA

Columbia Plaza rises close to a 130-foot height. On this corner right here, within 270 feet of the north side of the Culture Center, you have Watergate Town, and that will rise to approximately 130 feet high. This is or will be actually one of the most congested areas of the city.

This building contemplated this year is twice the size of the structure at Dulles Airport. It is a huge building, gentlemen, and there just is not room enough down here for this.

CONCERN FOR SUCCESS OF PROJECT

So this is our presentation. Our real concern on this is for the success of the project. I also happen to be chairman of the Physical Relations Committee of the Federation of Citizens Committees of

the District, and we have to come before you, sir, each year to get money for the District.

I can see in 2 or 3 years having to come back and ask for $2 or $3 million to maintain the structure. We need a cultural center in the center of town where it will do some good, where the common people can get to it.

You cannot even walk to this thing, and this is what we are really concerned about.

Senator BARTLETT. Does that conclude your statement?

Mr. IMMER. Yes, sir.

Senator BARTLETT. Thank you. Do you have any questions, Senator?

PARKING FACILITIES

Senator YOUNG. How many cars could be parked there?

Mr. IMMER. They have a capacity for only 1,600 cars. Yet they have to have 2,500 in attendance for the events to be a success. They cannot hold events in more than one of the theaters at one time, because there is just not enough parking there.

When you consider that the people working there, the stagehands, those working in the cafeterias, will have cars, there will be possibly a couple of hundred cars.

BUS TRANSPORTATION

So there is not going to be space for 1,600 cars available for the patrons. There is bus transportation, but this is highly unsatisfactory, especially for an event. It is not on a regular busline.

LOCATION OF SITE

Senator YOUNG. Who made this site?

Mr. IMMER. I do not know that, sir. I do know, going back to 1959–60, there were objections to the site at that time. The Engineer Corps turned down a previous proposal for a project down there.

One of the gentlemen of the Fine Arts Commission, several years ago, protested against the site. He has since reversed that position. But our real concern is that this is a force pulling people away from the downtown area. And our main business, sir, is the tourist and people who come in from all over the country.

We have 4 million or 5 million, mostly kids, who come in here. They are looking for something to do at night. If we had a Cultural Center down on Pennsylvania Avenue, it would be a center for all of these kids coming in here. It would be something for them to do in the evening.

But they are not going to go down to the river for this thing here, and this is part of our concern.

RECOMMENDED ALTERNATE SITES

Senator BARTLETT. Has your group recommended, or is it ready to recommend, any specific downtown site?

Mr. IMMER. The groups have not acted upon any specific recommendations. I have some personal ideas.

Senator BARTLETT. Where would you put it, if you had your way?

Mr. IMMER. I would put it between 8th and 11th Streets, south of E Street, where they plan to put the FBI Building. I understand the Government is already gathering that land in there and this would be an ideal spot for it, and it would be commensurate with the concept of a monumental construction for Pennsylvania Avenue, while the FBI Building is another office building in there and will absolutely kill the downtown area.

Senator BARTLETT. Thank you very much.

Mr. IMMER. Thank you, sir.

Senator BARTLETT. The clerk has a summary statement prepared by the National Capital Planning Commission concerning a number of alternate sites, and that statement will be placed in the record at this point.

(The summary referred to follows:)

ALTERNATE SITES FOR THE JOHN F. KENNEDY CENTER FOR THE PERFORMING ARTS

(Statement submitted to the Interior and Related Agencies Subcommittee, Committee on Appropriations, House of Representatives, in accordance with request at hearings on February 24, 1964)

CAPITOL HILL AREA

The estimated acquisition cost for property in the Capitol Hill area ranges from $10 to $30 per square foot, or $500,000 to $1,250,000 per net acre. As the blocks are small, the assembly of a tract of 10 acres or more would contain around 30 percent in streets and alleys, reducing the gross acquisition cost per net acre to a range of $350,000 to $800,000. A 10-acre site of average value could probably be assembled in the Capitol Hill area for $4 or $5 million.

PENNSYLVANIA AVENUE AREA

Values in the Pennsylvania Avenue area range from $40 to $200 per square foot and average a hundred dollars per square foot. The site of the FBI Building comprises two of the lowest valued blocks in the area, with a value of approximately $12 million for the 6.5-acre site. Average land values in the area are approximately four and a half million dollars per acre. Both in this area and the Capitol Hill area considerable residential and business relocation would be involved.

SOUTHWEST URBAN RENEWAL AREA

Although temporarily vacant land exists in the Southwest Urban Renewal Area, there are no uncommitted sites of sufficient size and appropriate location.

HAINS POINT SITE

The Hains Point site, as well as any sites within the central Mall composition, represents public land upon which the Cultural Center could physically be constructed. However, planned open space in itself is s major land use function just as important, if not more so, in the central Mall of our Nation's Capital, as land developed with private or public buildings. Hains Point is a major open space within a "stones throw" of the central area. It is reclaimed land which would require expensive garage construction at grade for offstreet parking. In combination with the National Aquarium and Fisheries Center, the proposed Cultural Center would consume most, if not all, of the open recreation area in parking lots. The National Aquarium in itself can be adequately handled. With the addition of the Center and the lack of public transportation to the Hains Point area the offstreet parking problem would be accentuated and special public transportation would have to be provided during events at the Cultural Center.

Access roadways for two public institutions of this size would require complete reconstruction of the underpass and connections to and from the new Washington Channel Crossing and the R.F. & P. Railroad. In addition, a minimum four-lane road of approximately 3 miles in length would be required around East Potomac Park.

CONSTITUTION AVENUE SITE

The single available site of adequate size to accommodate the John F. Kennedy Center for the Performing Arts would be the present location of the Navy Department Building, between 17th and 21st Streets, south of Constitution Avenue. Under the McMillan plan of 1901 this area is open space to afford an appropriate setting for the Lincoln Memorial-Reflecting Pool-Washington Monument complex. With the architectural excellence of the park area west of the Washington Monument, we would consider the placement of a large structure of the dimension of the John F. Kennedy Center a major intrusion upon the most important setting in the Nation's Capital. Proper access to the structure from Constitution Avenue, which is to become a major point of access to Virginia via the Theodore Roosevelt Memorial Bridge, would require further uses of the park area for access and egress which again would be inconsistent with the long accepted plan for the use of this space.

INDEPENDENCE AVENUE AREA

A site yet not built upon is located on Independence Avenue between 4th and 7th Streets. The site is directly across the Mall from the National Gallery in close proximity to the Capitol and the downtown area. A cultural center of the presently proposed dimensions would suit it admirably. With the National Gallery presenting the arts and the Cultural Center the performing arts, a natural center for the arts would be established. However, this site is earmarked for the future Air Museum.

Senator BARTLETT. Mr. Wilkes, please.

LAW FIRM OF WILKES & ARTIS

## STATEMENT OF JAMES C. WILKES, JR.

MARJORY HENDRICKS AND WATER GATE INN, INC.

Mr. WILKES. Mr. Chairman and members of the committee, my name is James C. Wilkes, Jr., a partner of the law firm of Wilkes & Artis, having offices at 500 Tower Building, 1401 K Street NW., Washington, D.C. We represent Mrs. Marjory Hendricks and Water Gate Inn, Inc., owners of lots 806 and 810 in square 10, which is a small square outside of the area prescribed by the act of Congress in 1958, in the District of Columbia, improved by Water Gate Inn.

You will not be surprised that, as owners of property proposed to be taken, we are here to voice our strong opposition.

In addition to our natural desire for self-preservation, we respectfully submit that there are compelling factors of public policy and law which lead to the conclusion that the proposed appropriation act should not be adopted.

WATER GATE INN

First, it is not in the public interest to dislocate Water Gate Inn in the absence of a showing of necessity.

Since August 5, 1942, Water Gate Inn has been a gourmet's landmark within the Nation's Capital, which has served well in a Pennsylvania Dutch-Early American atmosphere between 800 and 1,000 persons per day for over 22 years.

Over 8 million meals have been enjoyed by the local citizens and others from all parts of the country and, indeed, from all parts of the world. The existing structure is a low, attractive building of colonial design and is literally a museum of authentic Early Americana.

The building itself could not be replaced without the approval of the Fine Arts Commission. It is the intent of Mrs. Marjory Hendricks to continue operating Water Gate Inn as long as she is permitted to do so.

RECOMMENDED RELOCATION OF SITE FOR THE CENTER

Second, the public interest requires that careful consideration be given now to a relocation of the entire site for the Center. In this connection, we stress the following considerations:

The existing site is not located where it will best serve the public. This conclusion, gentlemen, is supported by the strenuous opposition voiced by citizens and civic groups who have carefully and objectively considered this issue.

UNDERGROUND PARKING GARAGE

Relocation would result in substantial savings. We suggest that you carefully examine the economics of a $15.4 million loan for three-level underground parking garages for 1,600 spaces costing almost $10,000 per car from which net income, based upon the optimistic estimate of an average attendance of 5,000 people per day, 70 percent occupancy, 7 days a week, 365 days per year, would be less than 4-percent interest on the cost of the garage. At other locations, private enterprise could very reasonably be expected to meet the off-street parking needs generated by the Center to a substantial degree.

ESTIMATES OF REVENUES FOR OPERATION OF THE CENTER

The parking garage costs would unquestionably cut into the program of the Center. Now the Center has submitted estimates of revenue to be derived from the operations of the Center and have stated at the hearing in December that on the basis of those estimates they would break even.

Very conspicuously, gentlemen, they also stated that the garage would be self-liquidating. It is abundantly clear that the garage not even being able to pay current interest on the cost could not be self-liquidating.

One must conclude, therefore, that the cultural program of this great enterprise must suffer in order to place the Center at a location which requires the installation of a $15.4 million garage.

The maximum contribution of the proposed project to culture will be attained only where the location is conducive to financial success. We question that the present site achieves this objective.

TIME TO EXAMINE RELOCATION

The time to halt and reexamine the question of relocation is now. I have heard the statement that Mr. Stone states the working drawings will be available in October of this year. Certainly next October will be too late to reconsider this issue.

AUTHORIZATION FOR LAND ACQUISITION

Third, assuming that the Center not be relocated, all of square 10 should not be acquired for the following reasons:

(1) There has been no authorization for an appropriation to take square 10. Congress, in its wisdom, by Public Law 85–874, specifically prescribed the site to exclude the part of square 10 where Water Gate Inn is located. No subsequent legislation has enlarged

the site to include square 10. An appropriation for funds without prior authorization, we submit, would be illegal.

PURPOSE OF ACQUISITION

(2) The proposed condemnation is clearly for the purpose of the Center. Notwithstanding the fact the proposal purports to be to take land for a public park, the President's request for this appropriation directly ties the land into the site of the Center. In this connection, I must state that this must be considered in the light of what has already occurred.

On November 2, 1960, the United States filed a condemnation proceeding for the acquisition of certain land in square 10 in the district court docket No. 27-60 in the U.S. District Court for the District of Columbia, ostensibly for "the comprehensive development of the park, parkway, and playground system of the National Capital" and paid therefor $146,000.

To my amazement, I have just learned that the land acquired in that proceeding is now carried as an asset on the books of the Center, notwithstanding the fact that it is beyond the bounds of the site prescribed by Congress.

SHOWING OF NEED FOR LAND

(3) There has been no adequate showing of need for additional land embracing square 10 as a "parklike setting for the Center." I refer to Mr. Stone's testimony in the hearings before the Public Works Committee. Mr. Stone stated, gentlemen—and I will summarize—that there are 85 acres of park land on the Washington side of the building measured between the buildings to the south, the east, and to the north, plus 200 acres on the opposite side for a total of 285 acres.

OTHER PROPERTY AFFECTED

Senator YOUNG. What other property is on square 10?

Mr. WILKES. There is one small building which is along the New Hampshire Avenue frontage which is, I would say, approximately 10 by 20, and there is nothing else within the square other than the Water Gate Inn itself.

PURPOSE OF CONDEMNATION PROCEEDING

The condemnation proceeding which I referred to was for, ostensibly, an adjustment of the roadway. We respectfully submit that a taking which would exclude lots 806 and 810, which is a one-story building with a half story up in the eaves, in the area along the waterfront, and between a 125-foot structure to the south, which would be the Cultural Center and the Town Center to the east, would certainly be a very pleasing transition, and we seriously question the necessity of taking this fine, colonial structure of very low height for this purpose.

OWNERSHIP OF BUILDING AND LAND

Senator YOUNG. Does your client own the building as well as the restaurant?

Mr. WILKES. The building and the land, yes, sir, the land being 806 and 810. As I say, it is just one-quarter acre.

ESTIMATED COST OF LAND

Senator BARTLETT. You say that the estimated cost of the additional land is grossly understated. What is that estimate?

Mr. WILKES. The estimate, as I understand it, is $3.3 million to acquire land which embraces, as I understand it, approximately several additional acres, on the basis of the sale of Water Gate Inn of $900,000 for less than a quarter acre.

We are talking about $3,600,000 per acre. And it is quite clear that the estimate of just compensation upon which this requested appropriation is based is conservative to the point of absurdity.

Senator BARTLETT. As a matter of fact, about $500,000 would be involved if the property which you are discussing. Is that the case? Most of the $3.3 million is within the area authorized for taking now.

Mr. WILKES. Mr. Chairman, I did not understand your question.

Senator BARTLETT. Did you not say that $3.3 million is involved?

Mr. WILKES. In the request for additional appropriations, as I understand it, sir.

Senator BARTLETT. But most of that is within the area authorized to be taken by the law?

SQUARE 10 AUTHORIZATION

Mr. WILKES. Yes. The only portion of land which is not authorized under the act of 1958, which is before you gentlemen today, is square 10.

Senator YOUNG. All the rest is authorized?

Mr. WILKES. All the rest is authorized, the properties that the other property owners have talked to you about this morning are authorized and have been since 1958. There has never, however, been an authorization with respect to square 10.

And we respectfully submit that that is a defect which would have to be cured by authorization legislation.

PROPOSED SALE OF WATER GATE INN

Senator BARTLETT. You say the inn and the land were to be sold for $900,000?

Mr. WILKES. That is correct, sir.

Senator BARTLETT. Do you know what the local businessmen intended to do with that property?

Mr. WILKES. I know that the immediate plan was to lease back to Marjory Hendricks for a continuance of the operation of Water Gate Inn.

In the event that at some later date they desired to develop that site now occupied by Water Gate Inn to its highest and best use under the existing special purpose District zoning, they would be permitted to go to a maximum height of 60 feet for a hotel-type use.

COMPATIBILITY OF INN WITH CENTER

What is the crying need for one-fourth acre more of Water Gate Inn? In any event, an examination of Water Gate Inn is proof of the fact that it is compatible with the Cultural Center itself.

The estimated cost of the additional land requested is grossly understated. The Water Gate Inn and site of our client recently sold for $900,000 to a group of prominent local businessmen. The site is less than one-fourth acre, 10,499 square feet. That is almost $90 per square foot. A complete tender of settlement under the sales contract was made by sellers to purchasers on March 3, 1964. Purchasers rejected the tender on the grounds of the pendency of the subject appropriation bill. After a declaration of taking is filed in this case, Congress would be required to make substantial additional appropriations.

OBJECT TO CONDEMNATION OF INN LOCATION

In conclusion, gentlemen, we stress that while we support 100 percent the cultural project and the memorial in honor of our beloved late President Kennedy, for the foregoing reasons, however, we respectfully urge that no provision be made for the condemnation of the part of square 10 on which Water Gate Inn is located.

Senator BARTLETT. Thank you, Mr. Wilkes. Does that conclude your statement?

Mr. WILKES. That would be subject to the approval, of course, gentlemen, of the Fine Arts Commission.

Senator BARTLETT. Yes. Thank you very much.

Mr. WILKES. Thank you, sir.

Senator BARTLETT. Mr. Hodgson, please.

CAPITOL HILL RESTORATION SOCIETY AND CAPITOL HILL COMMUNITY COUNCIL

## STATEMENT OF JAMES HODGSON

LAND ACQUISITION FOR CULTURAL CENTER

Mr. HODGSON. My name is James Hodgson. I would like to thank the committee for the opportunity of testifying on behalf of the Capitol Hill Restoration Society and the Cultural Committee of the Capitol Hill Community Council.

We are property owners in this area. We are residents of the District of Columbia trying to make the Capitol area more attractive, and so we, perhaps, appear more frequently in these Halls than some of the other citizens' associations in Washington.

This is not because they are not interested, but perhaps because we have more practice. There are three major points I would like to make. I have submitted a statement which will, perhaps, stand by itself. I would like to make three additional points, some of which are contained in the statement.

LEGISLATION ON THE ACQUISITION

The first one is a comment on the legislation before the committee, that it does contemplate legislation on an appropriation bill as Mr. Wilkes just submitted. There is a 7.7 acre site which is specifically authorized by the Cultural Center as of 1958, and that portion of the

bill was not amended in December. This specifically excludes a portion of the site which is, according to the site plans, located within the site of the building.

So the building plans were drawn up for an area which exceeds the site that the Congress authorized. The appropriation bill includes moneys to acquire additional sites. This is legislation on an appropriation bill.

### Operating Fund for the Center

The second question is the matter of an operating fund for the Center. This is something to which Mr. Immer referred. In the testimony before the Joint Public Works Committee, in December, figures were submitted on the garage, revenue figures for the garage.

These revenues were based on an assumption of either complete utilization at a cost of $1 per car or $1.20 per day. The cost of the building, as submitted to the committee, was $6,600 per car. There are 1,600 cars parking provided for and $15.5 million is being requested for this garage.

This is virtually $10,000 per car. This is about an additional third on the cost. Therefore, one might estimate that the cost to produce the revenue that the Center is submitting would be about $1.75 a car and $30 a month as rental.

### Bus Service to Department of State

The hope of the Center is that the daytime trade will be augmented by people from the State Department. They are planning to have a bus to run people back and forth from the State Department.

The net result is that private interests could build, and probably would build, within Water Gate Town, Columbia Plaza, and close to the State Department competive parking so that the revenues are highly overestimated and the amount is not a guaranteed loan but an appropriation in support of the arts.

### Location of the Center

The third point I would like to make concerns the location on the river. The Cultural Center people will state they must build there, because they have the site. I have heard ample testimony that they only have a portion of that site.

They do have to acquire additional property. Now I might point out that Mr. Cafritz offered, at one time, free of charge the Keith Center which is prime property in the center of the city. There are other proposals which have been submitted to your committee by other agencies.

The Pennsylvania Avenue people, which includes Mr. Paul Terry and Mr. Frederick Gutheim, were very much in favor of moving the Center downtown, also to be part of the Pennsylvania Avenue project.

All of this was quashed last summer, apparently because Mr. Stevens suggested to Mr. Kennedy that criticisms of the site were inhibiting his raising the funds. The Center only has between $3 million and $4 million in the bank of the $15 million that they have to raise.

This is only for the building and does not include any operating funds whatsoever. Those funds must come out of current revenue.

These people have suggested that the Cultural Center be moved downtown.

ACADEMY OF THE ARTS OR SCHOOL OF MUSIC AND ARTS

Now if the Center does not, in fact, have the site and a site would be available downtown, it is possible that greater public interest could be attained in raising funds, if an academy of the arts, a high school of music and arts, or something like that, were attached to the Center, something like the High School of Music and Arts in New York.

Congressman McDowell's suggestion of national competitions and national prizes could be looked into. It could be related to Senator Javits' bill on the National Arts Council, and the entire project could suddenly become not just a festival hall at night for people to come in and attend concerts, but it could be a living, cultural center with people there during the day, raising the general cultural level and providing public performances at reduced cost for some people who cannot afford $2 per car, and $5, $6, or $7 for tickets.

That is the end of my statement.

Senator BARTLETT. Thank you very much.

NATIONAL ASSOCIATION OF STATE FORESTERS

Senator Smith is here to introduce a witness, I believe.

Senator SMITH. Mr. Chairman, it is a privilege to come before your subcommittee and accompany a prominent member of the Maine State government, the forest commissioner of Maine, Austin H. Wilkins. However, Mr. Wilkins has appeared before this committee a number of times. Today he is not appearing as State commissioner but as national chairman of the National Association of State Foresters. I am very pleased to present to the committee Austin H. Wilkins and thank you for giving him an opportunity to testify.

Senator BARTLETT. We are glad to have Mr. Wilkins, especially under such sponsorship.

STATE AND FEDERAL COOPERATIVE PROGRAMS

## STATEMENT OF AUSTIN H. WILKINS, FOREST COMMISSIONER OF THE STATE OF MAINE, AND A MEMBER OF THE NATIONAL ASSOCIATION OF STATE FORESTERS

FAVORING 1965 BUDGET REQUESTS

Mr. WILKINS. Mr. Chairman, Senator Smith, Senator Byrd, my name is Austin H. Wilkins, forest commissioner of the State of Maine, and a member of the National Association of State Foresters. I am here today in the official capacity as chairman of the legislative committee of the association.

For your convenience, I would like to suggest that I submit my statement to you, and in about 5 minutes or less I will highlight points from this report.

Senator BARTLETT. That will be fine.

(The statement referred to follows:)

## Appropriations for Cooperative Forestry

*To Members of the Senate Appropriations Committee, Subcommittee on Interior and Related Agencies:*

Gentlemen, my name is Austin H. Wilkins, forest commissioner of the State of Maine, and a member of the National Association of State Foresters. I am here today in the official capacity as chairman of the legislative committee of this association.

I am most appreciative of the opportunity to appear before you for the fourth consecutive year. At your pleasure I should like to submit my statement for the record and then orally and briefly call to your attention a few pertinent points from it. These relate to the President's budget, page 168, for the fiscal year 1965 as presented to the Congress on January 21, 1964, covering allowances for the Department of Agriculture, U.S. Forest Service, on State and private forestry cooperation. Specifically they are: Clarke-McNary, Section 2, Forest Fire Control; Clarke-McNary, Section 4, Forest Nursery Production and Distribution; Cooperative Forest Management, Aid to Small Woodland Owners; and Soil Bank title IV, Assistance to States for Tree Planting.

Our association is indeed pleased to note the recommended increases for forest-fire control and assistance to small woodland owners, while the forest nursery production and distribution and assistance to States for tree planting figures are not less than the funds appropriated for 1964. These well-established and going programs have in the past, and will continue in the future, to contribute heavily toward the national forest economy of our country.

We are all the more appreciative of these recommended budget figures in view of the priority need of substantial funds for national security, interest on the debt, and the other sums which make up the total President's budget.

At this point I should like to call your attention to the following tabulation showing the authorizations, appropriations, and recommended increases for these most important Federal-State cooperative forestry programs:

| Program | Present Federal authorization | 1964 Federal appropriation | Increases | | Total 1965 President's budget |
|---|---|---|---|---|---|
| | | | Pay costs, Public Law 87-793 | Other | |
| Forest fire control | $20,000,000 | $12,494,000 | $14,000 | $250,000 | $12,758,000 |
| Seedling production | 2,500,000 | 300,000 | | | 300,000 |
| Cooperative forest management | 5,000,000 | 2,513,000 | 5,000 | 500,000 | 3,018,000 |
| Forest tree planting | | 1,000,000 | | | 1,000,000 |
| Total | 27,500,000 | 16,307,000 | 19,000 | 750,000 | 17,076,000 |

These sums play a major role together with State and private appropriations toward programs of better protection, management, research, recreation, production, and utilization of the vast forest wealth of approximately 435 million acres of forests in State and private ownership. Coupled with this are the Federal funds and programs for the administration of the 181 million acres of national forests. Under present world affairs of rapid change, development, increased population, highway expansion, more leisure time, higher wages, urbanization, and market competition, just to mention a few, there is the need to sustain and gradually accelerate the Federal-State cooperative forestry programs now in effect if projections for future demands for wood and the development of the other related resource values are to be fully realized.

We note and support the President's message on agriculture to the Congress on shifting cropland to less intensive uses of trees, grass, wildlife habitat, outdoor recreation, and the other uses for which there is a growing demand. To this can be added the overall rural area development and other incentive programs. Many States are already participating in forestry programs to help alleviate situations in distressed areas throughout the Nation.

May I at this time state that our association and the many individual States enjoy an atmosphere of pleasant relationship with the U.S. Department of Agriculture and Forest Service representatives.

I need not go into any detailed explanation of the programs as to history, formulas, or allocations as I believe you are already familiar with them. I would, however, like to touch briefly on each.

FOREST FIRE CONTROL

The recommended increase of $250,000 for forest fire control would be used to strengthen this program which covers about 435 million acres of State and private forest land in the Nation. These forested areas produce 85 percent of all our forest products. The annual burn is gradually being reduced but still there is far too much burning each year. Under this grant-in-aid program, fire protection would be extended to new areas not receiving protection, and intensify those already in operation. Currently the States are supporting a financial burden of $55 million of expenditures, while the Federal share is $12,500,000. A recent study shows that it would cost $83,500,000 annually to provide adequate protection to the 435 million acres of State and private forests. Thus the recommended increase of $250,000 is most encouraging as another progressive step toward eventually reaching the full $20 million Federal authorization.

FOREST NURSERY

While there is no increase for growing and distributing forest seedlings, the appropriation of the same figure in 1964, $300,000, will help keep forest nurseries in operation to supplement stock which must be raised to meet demands for planting programs under soil bank, title IV; cropland conversion; Soil Conservation Service; and Agricultural Stabilization and Conservation. There is always going to be a need to grow forest seedlings to make idle lands productive and yield wooden dollars.

COOPERATIVE FOREST MANAGEMENT

The recommended increase of $500,000 would be used to provide technical assistance to an additional number of small woodland owners in the improved management of their woodlands and processors of forest products. It is significant to state that three-fourths of the 435 million acres of State and private forests is held by 4½ million small woodland owners, of which 3¼ million acres are owned by farmers. In the opinion of many, this is where the "future woodpile of tomorrow" is to be found. Therefore, the need to make these many unmanaged areas more productive is through this technical assistance program. Accomplishments since this program first started in 1950 have been most rewarding in number of owners serviced, acres harvested, trees planted, gross sale value, and primarily setting up a sound program of management.

Another significant fact is the increased authorization by the 87th Congress from $2,500,000 to $5 million, making possible the recommended increase of $500,000 for this most important Federal-State cooperative forestry program. Currently, the States are appropriating $3,700,000 as against $2,300,000 by Federal.

In my own State of Maine, where forestry is our No. 1 economy, nearly 50 percent of the forest-harvested crops come from small woodlands. Technical assistance to our 77,000 small ownerships will greatly enhance the quality and quantity of forest growth on nearly 6½ million acres.

SOIL BANK, TITLE IV

The $1 million recommended in the 1965 budget, which is not less than appropriated in 1964, would be used to continue to encourage and help finance a long-range program of reforestation of about 70 million acres of private lands. If you will pardon my second reference to Maine, we rather proudly point to the fact that our State was one of the few States to continue this program when Federal funds were not available in 1960–61. Currently 33 States are participating under the provisions of title IV of the Agricultural Act of 1955. The reforestation of burned lands, poorly stocked, and unstocked areas is most important. Under this program it has been possible for States to establish seed orchards, natural seed production areas, and collect high quality native seed.

CONCLUSION

This concludes my presentation as chairman of the Legislative Committee of the National Association of State Foresters, urging your acceptance of the President's budget for the fiscal year 1965 as related to the Federal-State cooperative forestry programs of forest fire control, forest nursery, aid to small woodland owners, and reforestation.

Our association is most appreciative of the recommended increases and that the other program figures remain the same as appropriated in fiscal year 1964.

We realize goals cannot be accomplished in one yearly appropriation, but does call for sustained and gradual accelerated increases. The working forests of this country have been good to us in many ways and for many years. Let us, therefore, the Federal and State Governments, continue to join cooperatively to furnish the needed funds to protect, manage, and utilize to the fullest this valuable heritage—our Nation's forest wealth.

Thank you again for the opportunity to appear before you and to speak favorably for these Federal-State cooperative forestry programs.

AUSTIN H. WILKINS,
*Chairman, Legislative Committee, National Association of State Foresters.*

SUPPORT OF PROGRAMS

Mr. WILKINS. It is a pleasure to appear before this committee for the fourth consecutive time and to speak in favor of President Johnson's budget for fiscal 1965 covering the State and Federal cooperative programs.

These deal directly with forest-fire control, the stocking of forest nurseries, they have to deal with aid to small woodland owners, and, of course, forest reforestation. We are especially pleased to note in the budget there are recommended increases for aid to small woodland ownerships.

We are particularly pleased to also note that the same figures were sustained for the proposals of established forest nurseries and also in regard to reforestation. For the benefit of the committee, I think it is well to point out that these are old-line, well-established, going programs that have been going on for many years under the Clarke-McNary Act of 1924, and we feel that these programs, as you may be aware, do contribute a major part to the forest economy of our country.

There is a need to carry on these programs, I think, in your State especially, Senator, for aid to small woodland owners and fire protection. There are approximately 435 million acres of State and private lands that do come under these programs.

AUTHORIZATIONS

I call your attention to the short tabulation on page two of the statement and point out the fact that the Congress did establish some authorization figures in 1948, $20 million for forest fire control, $2.5 million for seedling production, and essentially $5 million for aid to small woodland owners.

I think the important thing to point out here is that these programs do contribute toward the production, utilization, research, and management of these programs.

Rather than to go into detail for each, I think it is important to point out that we do support the administration's programs of cropland conversion, soil conservation service, the ARA, RAD, and other cost-sharing incentive programs.

COOPERATION WITH FOREST SERVICE

And may I point out, Mr. Chairman, that over the years we have enjoyed a very excellent relationship with the U.S. Forest Service of the Department of Agriculture.

In conclusion, I would like to read the final paragraph of the statement of which, again, calls to your mind that we would like to sustain

these figures and, then, under the authorization, ask for a gradual accelerated increase in these programs.

And so I conclude by saying that the working forest of this country have been good to us in many ways and for many years. Let us, therefore, the Federal and State Governments, continue to join cooperatively to furnish the needed funds to protect, manage, and utilize to the fullest this valuable heritage—our Nation's forest wealth.

Thank you again, Senator, for the appearance before you to plead in behalf of these programs.

Senator BYRD (presiding). Thank you, again, for appearing before our subcommittee. We appreciate your testimony and we congratulate you upon your appearing as national chairman of the Association for State Foresters.

It seems rather not strange but delightful that your distinguished Senator, the senior Senator from Maine, is also continuing to gain prominance nationwide. She is getting an even greater and broader following of admirers than ever before.

We are happy, Senator Smith, that you not only make possible the appearance of fine witnesses before the subcommittee, but you always also manage to attend with them and we appreciate your presence with them. We thank you so much for having Mr. Wilkins here today.

### WEST VIRGINIA AS PARTICIPATING STATE

Senator SMITH. Mr. Chairman, you are very generous and I thank you for your fine remarks. It is a great privilege to come here, and I was especially pleased to hear Mr. Wilkins refer to your State of West Virginia as being one of the participating States.

Senator BYRD. Thank you very much, Mr. Wilkins.

Our great minority leader, Senator Dirksen, appeared earlier and expressed an interest in having the subcommittee hear Mr. Donald H. Gott. At this time the committee will call on Mr. Richard D. Behm, marketing specialist, to appear, I understand, in lieu of Mr. Gott. However, Mr. Gott's statement will be printed in the record.

(The statement referred to follows:)

### AMERICAN WALNUT MANUFACTURERS' ASSOCIATION

### STATEMENT OF DONALD H. GOTT, EXECUTIVE DIRECTOR

Mr. Chairman, members of the Senate Subcommittee on Appropriations for the Department of Interior and Related Agencies, my name is Donald H. Gott, and I am executive director for the American Walnut Manufacturers' Association. My purpose in appearing before you is to respectfully ask your assistance on two Forest Service activities of major importance to our association and its members. These activities and the assistance needed are (1) construction of wood utilization, timber management, and marketing research laboratories at Carbondale, Ill., and (2) expansion of the Forest Products Laboratory at Madison, Wis.

My association, founded in 1914, has its headquarters in Chicago, Ill. We are a trade association, consisting of 19 companies engaged in processing black walnut logs into veneer and lumber for a wide variety of uses; e.g., in paneling, furniture, gunstocks, and musical instruments. Our member companies produce more than two-thirds of all walnut veneer made in the United States. With few exceptions, our members and affiliated companies are located in the six central States of Ohio, Indiana, Illinois, Iowa, Missouri, and Kentucky. Although walnut occurs naturally throughout eastern United States, the growth of veneer

quality trees is concentrated largely in these same six Central States. This central area supplies the major part of the walnut timber used by domestic and foreign manufacturers.

Today large, top-grade trees sell for, as they stand in the woods, top prices by comparison to any other hardwood. American walnut is one of our most valuable native hardwoods. It is a wood highly esteemed by designers and architects for many high-quality uses because of its uniquely beautiful grain, hardness, strength and durability combined with excellent machining and finishing properties. I'm sure that these fine characteristics are well known to you.

Throughout Eastern United States, the quality of our hardwood timber resource has declined until it is in short supply. For example, 90 percent of the hardwood trees of the valuable species are too small to provide the quality of wood demanded for such valuable products as veneer and furniture. According to recent Forest Service publications: "The supply of veneer quality logs in Iowa may be expected to diminish gradually during the next 10 to 15 years. The young stands building up today do not contain as many black walnut trees as did the earlier forests * * *." In its report on Indiana's forest resources and industries the Forest Service said: "* * * the Forest Survey has found that the volume of high-quality wood is declining in each of the Central States * * *." These and similar statements show clearly that we are rapidly running out of high-quality hardwoods.

In contrast, the demand for these raw materials is increasing. The walnut situation today illustrates dramatically what is happening. In the last 10 years the total export of veneer-quality logs multiplied 32 times while domestic use increased nearly 4 times. At the current rate of foreign and domestic consumption, we are cutting over twice the amount of walnut veneer timber we are growing. In a few years, this rate of overcutting would completely exhaust our supply of walnut veneer timber.

This trend is alarming because of the adverse effects it will have on our economy. The domestic walnut veneer industry is threatened with the loss of this source of supply. If this occurs, they would cease to operate. This loss certainly would be felt by the wood furniture industries, the wood cabinet industries and the hardwood plywood industry. These American industries operate over 6,000 plants, employ over 200,000 people with an annual payroll of $850 million, and annually ship wood products valued in excess of $2⅔ billion. These dependent industries are in jeopardy and it is estimated that perhaps 10 percent or about 20,000 of the jobs they provide would be lost through the demise of our walnut veneer supply.

Our association has recognized the adverse supply trend that has been occurring over the past several years. In cooperation with State and Federal forestry programs we have taken steps to encourage the proper planting, management, harvesting and utilization of black walnut. Our industry, in cooperation with more than a dozen States, assists in collecting and distributing for planting from 3 to 5 million walnut seeds and tree seedlings annually. Undoubtedly, more attention is given to planting walnut than to any other hardwood in the United States. We have helped finance Forest Service research that will improve the quality of walnut by pruning. Last year and again this year we contributed cooperative funds to assist the Forest Service in conducting genetics research in black walnut. This work will be of value to forest land owners and to industry throughout the entire range of black walnut in the Midwest and Eastern United States.

However, not all of our efforts have been successful. For example, we are finding that only a small percent of the nuts and seedlings we have helped distribute annually over the past 30 years have actually produced young stands of walnut timber. We need research to help us locate the best parent walnut trees from which to collect seed and grow seedlings adapted to local soils and climate. We need research in breeding walnut and other valuable hardwoods to develop hybrids having the best features of several parents. And we need research that will give us cultural methods to grow the best quality trees in the shortest possible time. From my experience in the wood industry, I am firmly convinced that this same kind of research is needed for other valuable hardwoods such as the oaks, gum, and cottonwood.

The heavy demand for high quality, valuable hardwood trees has reduced severely the size of logs available to hardwood processing and manufacturing plants. This is creating new, perplexing and complicated problems for our industry: for example, in veneer cutting methods and equipment, curling of cut veneer, drying, and gluing. Furthermore, the volume of low-grade material produced increases rapidly as the size of logs decreases. This creates needs for research in product development and marketing. These are highly technical

problems that we cannot solve alone. But if they are not solved, our entire fine hardwood industry, with the jobs and payrolls it supplies, is seriously threatened.

To help the walnut and other fine-hardwood industries survive we strongly favor increasing research facilities for the U.S. Forest Service. Specifically, I recommend:

(1) Funds be provided this year for the Forest Service to construct and equip timber production, utilization and marketing research laboratories, greenhouses and offices at Carbondale, Ill.

I had the good fortune to visit the Forest Service offices and facilities at Carbondale, Ill., last spring. I was deeply impressed with the fine work their research people are doing. At the same time I was dismayed to see these competent, highly trained scientists forced to improvise equipment and facilities in their efforts to do the research so vital to our industry and economy.

(2) That you approve the funds already in the Forest Service budget you are considering for expansion of the Forest Products Laboratory at Madison, Wis. The needed expansion and modernization of this scientific institution would provide for intensive research in many technical problems facing my association and other wood-using industries throughout the Nation.

I want to assure you that my association and its members will continue to the best of our ability our cooperation in State and Federal forestry programs.

It has been a pleasure to appear before you and to recommend construction of Forest Service research facilities at Carbondale, Ill., and Madison, Wis. I trust that you will give every consideration to my recommendations as well as to other critical research needs as you prepare the Forest Service budget for next year.

## STATEMENT OF RICHARD D. BEHM, MARKETING SPECIALIST

### WALNUT TIMBER PRODUCTION

Mr. BEHM. Yes, Senator Byrd, thank you very much.

Senator BYRD. Mr. Behm, you may proceed.

Mr. BEHM. I have the statement which we prepared and which I do not want to repeat, but I would like to summarize a few things in there in about 3 minutes. Senator Dirksen stated part of the case, in part, of the walnut in the interest of his State.

### RESEARCH AND EXTENSION FOR RESEARCH

It is one of the most important crops and it is also the top product for a $3 billion industry. It is the source of the greatest revenue per acre of any of our farm woodlots. The situation about which we are testifying today is to, No. 1, continue the splendid research at Madison, Wis., which has been instrumental in making many of our fine woodlot weed trees practical marketing products through their research.

But we think it needs an extension and the case in point at Carbondale would thoroughly explore the possibility through genetics of better woodlot tree production, timber production.

We are presently cutting our second crop of walnut from the land that Abe Lincoln split the rails on. This is the growth factor of the walnut and, of course, in West Virginia you folks are very familiar with this.

But suppose through selection and through private industry we are able to increase the growth factor and the value of that crop so we get three crops in the same period. We have then expanded that value and not only helped the area around the center States, but for every State from Maine to Texas, because walnut grows in that whole area.

### AREAS FOR WALNUT GROWTH

Sure, the pine sections are Indiana, Illinois, Ohio, Kentucky, Missouri, and Iowa. This is the heart of the finest walnut growth

in the world today. But it will affect everybody, if we can improve, through the facilities which we hope can be added at Carbondale, on-the-spot facility there for a real approach to this problem of finer woodlot use.

RAILROAD USE OF PRODUCTS

I could mention one other place that is important in the development. This was an original research at Madison, Wis., on hickory and pecan wood lumber and veneers. It is of interest to know that after this development in 1933, nothing was done for about 20 years, but currently 11 of the larger railroads are using this product for lining refrigerator cars and boxcars. The performance factor from hauling hanging beef from Colorado in the Midwest to the East is three times.

In other words, these freight and boxcars will not require repairs as frequently as they used to and will last three times longer, which is a real economic value. And, of course, the farmer woodlot instead of leaving the tree out there to deteriorate is finding a market. This is the kind of research we think that Carbondale can add to the Forest Products Division, and the facilities there will supplement others throughout the country.

ADDITIONAL APPROPRIATIONS FOR RESEARCH AND CARBONDALE FACILITY

We thank you very much for the privilege of appearing here, and I think everything appears in the summarized additional appropriations for basic research and this basic facility which we hope can be added at Carbondale to pinpoint the development of faster growing trees and better utilization.

Thank you.

Senator BYRD. By the way, those were not walnut logs Abe Lincoln was splitting into rails, were they?

Mr. BEHM. Yes. We actually cut them up in World War II for gun stocks.

Senator BYRD. You are not continuing to split them into rails?

Mr. BEHM. Not at that price.

Senator BYRD. Our next witness will be Ralph C. Wible, State forester of the Department of Forests and Waters, Commonwealth of Pennsylvania. Mr. Wible.

DEPARTMENT OF FORESTS AND WATERS, COMMONWEALTH OF PENNSYLVANIA

## STATEMENT OF RALPH C. WIBLE, STATE FORESTER

FEDERAL-STATE FORESTRY COOPERATIVE PROGRAMS

Mr. WIBLE. Thank you, Mr. Chairman. My name is Ralph C. Wible, State forester, Department of Forests and Waters, Commonwealth of Pennsylvania, and I am appearing before you today to present the views of the Pennsylvania Department of Forests and Waters concerning Federal-State cooperative programs in the field of forestry.

Now I realize there are several cooperative programs between the State and Federal Governments, but I will speak only on technical help to be received by small woodland owners.

PENNSYLVANIA COOPERATIVE FOREST MANAGEMENT PROGRAM

The cooperative forest management program in Pennsylvania makes professional forestry guidance available to the 277,000 citizens who own 40 percent of our forest land. Each year nearly 4,000 Pennsylvania families perform some act of good land stewardship under the watchful eye of a service forester, and each owner reaps a reward, either personal satisfaction, cash income, or both, for his trouble.

The benefits, needless to say, do not stop there, for the cash and the forest products exchanged in each transaction have an impact upon local employment and the local economy.

To be concerned about the status and welfare of this Nation's nonurban citizens is to be concerned about every influence affecting their livelihood and residential stability, and true concern demands maximum utilization of every tool and every resource at our command.

BENEFITS FROM SOUND FOREST MANAGEMENT

During 1963 the Pennsylvania Department of Forest and Waters placed on the open market 67 million board feet of timber stumpage, selected and marked by the foresters who manage our 2 million acres of State forest land. Despite the magnitude of this sales program, the sizable income it represents is only one of several direct and indirect benefits accruing from sound forest management.

The total acreage in small ownerships (holdings of 100 acres or less) in Pennsylvania is over three times as large as the total acreage of State forest, and because vast areas of the State forest are mountain land acquired by the State after all the merchantable timber had been removed, the private land is generally more productive and currently supports a more valuable timber growth.

The benefit potential from the management of the private forests, therefore, in both goods and services, is enormous.

COOPERATIVE FOREST MANAGEMENT PROGRAM BENEFITS

The cooperative forest management program makes these same benefits available to grassroots America. No single case is large, but each plays an important part in the national resource economy.

The dynamic force of the combined management efforts of individual forest landowners must of necessity lift the rural economy. Each managed wooded acre and each stable, independent, self-supporting citizen shares vitally in our national strength and progress, and the missionary work in this cause is, to a very large degree, performed in his quiet, dedicated way by the cooperative forest management service forester.

Thank you very much, Mr. Chairman.

Senator BYRD. Thank you, Mr. Wible. Our next witness will be Mr. William E. Welsh, executive director of the National Reclamation Association.

NATIONAL RECLAMATION ASSOCIATION

## STATEMENT OF WILLIAM E. WELSH, EXECUTIVE DIRECTOR

DEPARTMENT OF THE INTERIOR APPROPRIATION REQUESTS

Mr. WELSH. Mr. Chairman, I would appreciate it if I might file my statement and include it in the record.

Senator BYRD. It will be included in the record.

(The statement referred to follows:)

My name is William E. Welsh, I am executive director of the National Reclamation Association and in that capacity I am appearing on behalf of the members of our association, at least 60 percent of whom are representatives of various types of water user organizations throughout the 17 Western States. I am here to support appropriations for four Federal agencies which come within the jurisdiction of your committee—Forest Service, Geological Survey, Bureau of Land Management, and the saline water conversion program.

The irrigation farmers of the West, whom our association represents, have every reason to be vitally interested in all programs of the Federal Government which will approve the irrigation water supply so important and necessary for the growing of crops in the desert areas. These farmers could not exist or remain in that area without an adequate, well sustained supply of irrigation water throughout the entire growing season. It is for that reason that we are before you in support of the appropritions for the above-named agencies.

FOREST SERVICE

The forests of this Nation occupy the highest water yielding watersheds. More than 50 percent of the water flowing in western streams originates on Forest Service lands. Thus, you can well understand the interest of the National Reclamation Association in the protection and management of the forest watershed lands.

It is this interest that prompts me to appear before you today in support of the Forest Service appropriation request for fiscal year 1965.

Particularly, we call your attention to the need for the modest increase of $800,000 requested for the improvement of recreational areas on national forest lands devoted to public use. Many of these national forest public recreation sites adjoin reclamation reservoirs and consequently make possible more complete multiple use of these facilities.

We think the multiple use program under the Forest Service is far preferable to the single purpose program which prevails under the wilderness system. Under the multiple use program of the Forest Service, adequate roads and picnic grounds are maintained for the benefit of all who wish to avail themselves of the opportunity. Wilderness areas which are without roads, picnic grounds and other desirable facilities, are necessarily limited to only a very small percentage of our population.

The request for additional funds for improvement of national forest recreation resources is one phase of the total development program for the national forests submitted to the Congress on September 21, 1961, by the late President Kennedy. The Forest Service appropriation request under consideration by you is in support of the worthy objectives of the national forest development program.

An increase of $36,000 is proposed for the strengthening of the Forest Service program in watershed management research. We strongly support this request as a part of the national effort to improve water resource related research.

The Forest Service cooperates with the States in the protection and improvement of forest lands in State and private ownership. To further these cooperative Federal-State efforts, an increase of $1 million is proposed. We urge your favorable consideration of this request. Of the requested increase in the field of cooperative Federal-State forestry work, $250,000 is requested for strengthening the fire prevention and control efforts.

We especially commend this program as it is important in protecting the western watersheds not in Federal ownership from the ravages of fire. Fires denuding these watershed lands create soil erosion and accelerate the deposition of sediment in irrigation reservoirs and works. It is to be noted that while

authorizing legislation for the cooperative fire control program authorizes a Federal sharing of $20 million annually in the program, the annual Federal share has remained far under this amount. Even with the 1965 proposed increase, it will be but $12,758,000. Also, it is to be noted that the authorizing legislation permits the Federal Government to share with the States up to 50 percent of the total program costs within the $20 million limit. However, in 1963, the States paid 82.4 percent of the total cooperative program costs and the Federal Government 17.6 percent.

### Geological Survey

All agencies working in the field of water resources place great dependence upon the basic data and analysis made by the Geological Survey. Water problems are increasing faster than the needed data and knowledge available. Users of Survey data had looked favorably on the acceleration of data collection in fiscal year 1965 implied by the Geological Survey long-range plan, especially in figure 28, page 45 (Long Range Plan for Resources Surveys, Investigation, and Research Programs of the U.S. Geological Survey, 1964).

The budget presented to the House Appropriations Committee not only fails to provide this needed acceleration but the increases are probably insufficient even to meet the offerings by the States for cooperative work. Indeed, the fiscal year 1965 program for the water resources work has no increase for water quality investigations.

It is hoped that the Appropriations Committee will take into consideration the increasing needs for the data and analysis provided by the Geological Survey to try to keep abreast of the public demand for dependable water facts.

To the irrigation farmers of the West, one of the most important phases of the work of the Geological Survey is the cooperative streamflow measurement program which is carried on in practically every river basin throughout the West. The manner in which the various States or local organizations cooperate and contribute financially to the program indicates that it is very popular and it serves a very useful purpose. Based upon 24 years of experience as watermaster on the Boise River in Idaho, I can testify to the importance of this cooperative streamflow measurement program.

Oh behalf of the National Reclamation Association, I am very happy indeed to have the opportunity of supporting this program and urging that adequate funds be made available to carry on this work during the coming fiscal year.

Another phase of the Geological Survey program which we wish to strongly support and emphasize, is that of groundwater research. As we become better informed as to the increasing demands for water, we likewise realize more fully the importance of getting better information as to our groundwater supply.

### Saline Water Research Program

People everywhere are looking forward to the possibility of a breakthrough in our saline water research program. If and when such a breakthrough comes, it will be extremely helpful not only to many areas of this Nation but throughout the entire world where water supplies are inadequate. That is especially true in the southwest corner of this Nation where our population is increasing at a tremendous rate, but the water supply is very limited. And, not only is our population increasing in that area and throughout the Nation, but also our demand for water per capita is increasing.

We should continue with our research in saline water conversion by all means at an accelerated rate.

### Bureau of Land Management

The Bureau of Land Management has under its jurisdiction approximately 177 the million acres of public domain lands. This land is to be found in practically all of the Western States except the State of Washington. Quite a large portion of the public domain lands are in the higher altitudes, and therefore in areas contributing a great deal to the streamflows and water supplies of the major river basins of the West. For that reason the proper management and control of these areas is vitally important to the irrigation farmers in the many river basin areas.

Those who can remember back that far realize, that prior to the enactment of the Taylor Grazing Act which authorized the creation of the Federal agency which became known eventually as the Bureau of Land Management, the public domain lands of the Nation were practically uncontrolled. It is now generally conceded that the Bureau of Land Management has done a very credible job in

bringing the management and operation of these areas under control. In fact, the public domain lands of the West are now in much better condition as far as watershed protection and management are concerned than they were prior to the enactment of the Taylor Grazing Act.

We strongly support the program of the Bureau of Land Management and urge that funds up to the amount recommended in the budget, and sufficient to carry on a satisfactory program of watershed management and control, be made available to that agency for its operations for the fiscal year 1965.

### Codification of Reclamation Law

A committee was appointed a number of years ago to follow through on a resolution approved by the association recommending that Congress provide for "revision and codification of the Federal laws relating to reclamation matters." Similar resolutions were subsequently adopted. All water lawyers recognize the need for such codification. Every Congress since 1902 has passed some legislation relating to reclamation. Over the years many of these laws have at least been impliedly repealed or superseded, others have been amended, and in some instances later legislation has conflicted with earlier laws. There is a real need to have in one volume of the United States Code all presently existing laws relating to relcamation.

The codification committee worked diligently on this matter for several years and completed a revised code with the assistance of the law revision counsel of the House Judiciary Committee and the Solicitor's Office of the Department of the Interior. It is now up for final review by the Solicitor's Office of the Department of the Interior. The Solicitor's Office advises us that it will take several months' work by a consultant or expert on reclamation laws to bring this up to date and in final shape for submission to Congress. We feel this is essential and are asking for an additional $25,000 to be appropriated to the Solicitor's Office to complete this very important project.

Respectfully submitted.

Wm. E. Welsh, *Executive Director.*

### Need and Importance of Water

Mr. Welsh. I will not take more than 2 minutes to highlight some points.

Senator Byrd. All right, Mr. Welsh.

Mr. Welsh. I am here to represent the National Reclamation Association and to support the appropriations both for the agencies of the Federal Government which deal with the problems which are of vital concern to our people in the arid West, the irrigation farmers of the West, and to support appropriations for the four Federal agencies which come within the jurisdiction of your committee; Forest Service, Geological Survey, Bureau of Land Management, and the saline water conversion program.

In the arid West we have known of the need and importance of water since the days of the covered wagons. The work of the Forest Service is of special concern, because they deal with the high watersheds where most of our irrigation water comes from.

### Geological Survey Programs

The Geological Survey has several programs in which we are interested. Of course, the research program is vitally important. We strongly support that. We also support the work that they are doing in underground water, and another phase of their work that is important to us is the cooperative stream flow measurement program. That is carried on in practically every State of the West on a cooperative basis. That is an extremely important program with us.

### Saline Water Research Program

The saline water research program, of course, was brought to the attention of all of us with the increasing importance of water. The saline water research program is something that we think can mean a good deal to a great many areas, particularly in the areas along the ocean where such water is available, and particularly in the Southwest area.

### Bureau of Land Management Program

The Bureau of Land Management covers an area, which, up until the time it was created along in the early thirties was pretty much a no man's land.

But the Bureau, we think, has done a remarkable job of bringing that land under control. On the last page of my statement is a statement with respect to the codification of the reclamation law.

Those two short paragraphs were prepared in collaboration with the chairman of our committee, an attorney from Twin Falls, Idaho. He, and the members of his committee, have been working for a number of years toward getting a codification of our reclamation law.

### Codification of Our Reclamation Law

As pointed out there, it is simply a law that has grown by each session of Congress until it assumed a hodgepodge, and the irrigationists feel this is important due to the depth of interest.

The Solicitor's Office tells us that they do not have the funds to carry on that work. This is a request for $25,000 so that they can complete the work, and the bill be presented to the Congress.

Thank you very much, Mr. Chairman.

Senator Byrd. Thank you, Mr. Welsh, for a very fine statement.

Mr. Kenneth B. Pomeroy of the American Forestry Association.

### The American Forestry Association

## STATEMENT OF KENNETH B. POMEROY

### Forest Service Appropriations

Mr. Pomeroy. May I commend you, first, on having such a very capable secretary. She covered a 3-day meeting for us and I might say off the record that her work for us last fall was perfect.

Senator Byrd. We are glad to have you say it and it should be in the record.

Mr. Pomeroy. I am Kenneth B. Pomeroy, representing the American Forestry Association, of Washington, D.C. In order to save a few minutes for you, I would like to submit statements for the record in support of appropriations for the Forest Service, the Bureau of Land Management, and the Bureau of Outdoor Recreation.

(The statements referred to follow:)

Mr. Chairman, I am Kenneth B. Pomeroy, representing the American Forestry Association of Washington, D.C.

It always is a pleasure to review the budget of a bureau that consistently returns a substantial dividend to the Federal Treasury. Last year the income from the national forests amounted to $135 million. This amount can be in-

creased further by activating fully the program for development of the national forests which the Congress authorized in 1961. Therefore we recommend that appropriations for fiscal year 1965 be made in accordance with the President's budget and that provisions be made in future budgets to accelerate development of the national forests.

The Forest Service also makes very substantial contributions to the national economy through its programs of forest research and cooperation in State and private forestry. The work in forest research is of particular interest to our association because it is an investment in the future welfare of the Nation. Two important items are:

1. *Forest insect and disease research.*—Insects and diseases destroy enough sawtimber each year to construct 730,000 5-room frame houses. This is a very great waste of a valuable resource. Therefore we urge that research in the control of insects and diseases be pushed as rapidly as possible.

2. *Forest products utilization.*—One of the most important resources of rural America is its timber. Full utilization of the forest would go a long way toward alleviating the current economic stress in some areas. Therefore we recommend more intensive research in utilization, including modernization of the Forest Products Laboratory at Madison, Wis.

This association is concerned over the fact that much of the public domain is in a rundown condition as a result of past abuses. The association believes that the principles of good land use and rehabilitation should receive maximum support from Federal agencies, public land users, the Congress, and the public.

Accordingly, we wish to make three specific recommendations:

1. Fire protection facilities in Alaska should be strengthened.

2. Basic sanitary facilities should be provided at recreation sites used by the general public. This is necessary for reasons of health as well as for protection of recreation resources.

3. Efforts to rehabilitate rundown ranges should be expanded greatly. The job to be done involves—

(*a*) Brush control, 31 million acres.
(*b*) Range reseeding, 12 million acres.
(*c*) Water control, 481,000 structures.
(*d*) Water development, 50,000 projects.
(*e*) Fencing, 100,000 miles.

Demands for recreational use of forest lands and associated water areas are expanding at phenomenal rates under the pressing stimuli of an increasing population, rising standards of living, increased income, more leisure time, and better appreciation of the multiple benefits of outdoor life. Meeting present and future demands requires concerted action by Federal, State, county, and municipal agencies, private organizations, and individual landowners.

This requirement was recognized by the Congress last year when it authorized the Bureau of Outdoor Recreation to assist other groups in the preparation of recreation plans, to coordinate Federal outdoor recreation programs, to conduct outdoor recreation research, to conduct recreation resources surveys, and to formulate a nationwide outdoor recreation plan.

Therefore, the American Forestry Association urges that the Bureau of Outdoor Recreation be given funds with which to carry out its assignments as recommended in the President's budget.

### Insect and Disease Research

Mr. Pomeroy. There are just two or three items that I would like to direct your attention to. First, is the need for insect and disease research. This is in the Forest Service appropriation. I do not think we need to go into details.

The book "Silent Spring," and many other things have focused the public's attention on it. The fact that we lose enough timber every year to build 730,000 five-room framehouses is always a rather important item.

### Forest Products Utilization

The second thing pertains to forest products utilization. One of the most important resources of rural America is its timber, and full

utilization of the forest would go a long way toward alleviating some of the country's current economic stress in some of these areas.

BUREAU OF LAND MANAGEMENT

We would like to see this phase pushed as much as possible. Under the Bureau of Land Management I would like to direct your attention to the last item, efforts to rehabilitate rundown ranges.

This should be expanded greatly. It is our understanding that at the current rate of progress it would take about 100 years to rehabilitate the range. We think it ought to be done as rapidly as possible.

BUREAU OF OUTDOOR RECREATION

The last item is the Bureau of Outdoor Recreation. We would like to see this agency get on its feet and get moving.

Thank you very much.

Senator BYRD. Thank you, Mr. Pomeroy. Your statements will be included in the record.

We will now hear from Mr. Theodore B. Hetzel. He represents the Friends Committee on National Legislation.

FRIENDS COMMITTEE ON NATIONAL LEGISLATION

BOARD OF INDIAN RIGHTS ASSOCIATION

## STATEMENT OF THEODORE B. HETZEL, EDWARD SNYDER, EXECUTIVE SECRETARY, AND FRANCES NEELY

ALASKAN INDIAN COMMUNITY SOCIAL AND ECONOMIC AFFAIRS

Mr. HETZEL. I am Theodore B. Hetzel, engineering professor at Haverford College, a member of the Board of the Indian Rights Association, member of the Indian committees of the American Friends Service Committee, and of the Philadelphia Yearly Meeting of Friends.

The Friends Committee on National Legislation's executive secretary, Mr. Snyder, accompanies me, and Miss Frances Neely.

My testimony which I submit has also been read to the Board of Indian Rights. They have approved it without dissent, and they have asked me to speak for them also.

Since 1952 I have traveled widely in Indian communities. I am particularly interested in their social and economic affairs. The last three summers I have been in Alaska specifically on Indian problems. I have seen such great unmet needs that I think this budget appropriation should be expanded as being inadqeuate for the present problems.

POCKETS OF POVERTY

I know of your concern for the pocket of poverty and problems in the Appalachian region. I want to speak for what I think are worse pockets of poverty, the Indian communities where the unemployment is 49 percent, where the housing is the worst in the Nation, where the education is the most deficient, and where the health is the worst.

I have a great respect for the people I meet in the Bureau of Indian Affairs and the U.S. Public Health Service, and I think they deserve our support. Considering that the Indian population is growing so, the budget needs to be more than holding the line.

SCHOOLS AND TEACHING

There are mandatory increases in salaries and costs, so the budget request really represents a decrease in the program. The population increase is so much that the facilities need to be expanded and new teachers engaged.

Many communities have no schools, or insufficient seats for the children, and the program is not as appropriate as it really should be. More money is needed to especially train teachers and to especially equip the schools for the Indian needs.

The Indians no longer have an adequate land base to support themselves by their traditional skills, and they have not yet learned the new skills to attain well-being in our economy.

VOCATIONAL EDUCATION

Education needs, especially, to address itself to that. The present stress is too much on the academic education and the boys drop out. They are clamoring for more vocational education which is more expensive, but needs to be worked out.

HOUSING AND SANITATION

The housing is so inadequate. I have a number of photographs, if you care to look at them, of Indian housing. There is a wrecked automobile which is a bedroom for an Indian in South Dakota.

There are other examples of inadequate housing there which the Bureau and other agencies are helping to improve. I see the work of the U.S. Public Health Service, which I also admire very greatly, but the great needs are really unmet.

The study of 1957 indicated what an adequate program would be. The budget has not expanded to accomplish those needs. On the average, the lifespan of an Indian native of Alaska is about half that of the general U.S. population.

DISEASE

And the incidence of disease is very much higher. The number of new tuberculosis cases is 16 times greater, and the TB death rate is 6½ times greater. These are things that would respond to budget appropriations. We can do something about the sanitation and the water supply and the housing that is the cause of this ill health and short life.

As I said, the Indians cannot afford it for themselves and we, as a nation, cannot have our self-respect for ourselves, nor hold our position internationally, if we tolerate this kind of condition in our own Nation.

WATER SUPPLY

On the water supply, I have some photographs that illustrate that. Here in Alaska barrels are the only source of fresh water storage, and

also the only source of sewage disposal. They cast them out into the ocean.

Water is extremely deficient, especially in these villages that are increasing so rapidly. The population is increasing because of the school and good services. The water is very inadequate.

At Barrow the military installations can flush the toilets with fuel oil, but the Eskimo cannot. Some Federal help has, in the past, provided a water supply for cattle, but it is illegal for human beings to drink it. It is for sanitation, for the disposal of waste.

Many of these communities that I have visited showed these unsanitary conditions that are the cause of these troubles. I would also like to point out and speak for the need for Federal services for birth control.

### Need for Federal Services for Birth Control

The birth rate is 2.1 times that of the Nation at large in Alaska. These families simply cannot support that many children—12 to 15 children is not uncommon in an Eskimo family. They do not have the resources to take care of them.

The land will not support this exploding population. School facilities are totally inadequate. People want birth control information. They should be informed it exists and it ought to be supplied to them.

I think no matter what our intentions in the matter, whether we think we ought to acculturate them, to our way of life, or whether we want to permit them to retain their own culture, it is essential that their society be maintained. This population explosion is simply destroying their society and the land base on which they attempt to live.

### Services Needed To Help Indians

I think of one village in Alaska where no medical person has been until a dentist was in there this past year. No nurse had ever visited the place. There are many other services needed in helping the Indians solve their terrific accident rate, and the problem of alcohol, and this problem of vocational training to increase their employability

I see such great unmet needs, I bespeak your support for an increased budget rather than just holding the line on present requests.

### Unemployment Rate for Indians

Senator Byrd. Mr. Hetzel, when you speak of the unemployment rate among the Indians as being 49 percent, are you referring merely to Aaska?

Mr. Hetzel. No, that is the public Federal figure for the United States at large.

Senator Byrd. Is their unemployment growing, or does this represent a decrease?

Mr. Hetzel. I do not know that I can quote any other statistics than the most recent ones I have read.

Senator Byrd. And the most recent statistics show that 49 percent are unemployed?

Mr. Hetzel. I would say it represents an increase, because there is much less subsistence living. Other people may not have been

engaged in a salary but have been occupied full time. The number of people now are just sitting around, because there is nothing they can do.

### Alaskan Indian Unemployment Rate

Senator Byrd. Would you say that the unemployment in Alaska is higher than 49 percent?

Mr. Hetzel. Oh, much. Yes.

Senator Byrd. Now these unemployed Indians will get welfare payments?

Mr. Hetzel. In the States they qualify for the same welfare payments that anyone else could qualify for, and there is a small amount of help given them by the Bureau of Indian Affairs. If they do not yet qualify for State aid, the Bureau then tides them over.

I would not say the needs are being met.

### Birth Rate

Senator Byrd. You refer to the population explosion. Can you tell us about the rate of population growth among the Indians?

Mr. Hetzel. I have the birth rate figure from the most recent Public Health statement which is 2.1 times the national average. Just what that rate comes to in terms of population growth, I would not want to say authoritatively. I would make a guess that it might be 5 percent.

Senator Byrd. Are you talking about the birth rate?

Mr. Hetzel. Yes; also about the rate of increase of population.

Senator Byrd. And, coincidentally, that is the birth rate also?

Mr. Hetzel. No; I do not know the figures except that the birth rate is 2.1 times the national average.

Senator Byrd. The birth rate?

Mr. Hetzel. Yes.

Senator Byrd. And you are saying the overall population increase is 2.1 times the national average.

Mr. Hetzel. No, that is the birth rate. I am afraid I do not have the figures. The population increase is due to the health services. I am sure that figure would be available.

Senator Byrd. Your statement, as printed, will be included in the record, Mr. Hetzel. It is a very interesting statement. Thank you for appearing.

(The statement referred to follows:)

### Budgets for Indian Programs

I am Theodore B. Hetzel, engineering professor at Haverford College, a member of the board of the Indian Rights Association, member of the Indian Committees of the American Friends Service Committee and of the Philadelphia Yearly Meeting of Friends. I am here today for the Friends Committee on National Legislation. This committee seeks to represent many of the concerns of the Religious Society of Friends, but does not claim to speak officially for all Friends, for their democratic organizations do not speak with one voice, and individual Friends maintain the right to speak for themselves on issues of importance. Yet Friends are nearly unanimous in their concern for Indian welfare.

I appreciate this opportunity to speak in support of increased appropriations for the educational and social programs of the Bureau of Indian Affairs, and for the health activities of the U.S. Public Health Service.

### Great Unmet Needs

During my vacations in the past 10 years I have visited Indian communities across the country for the Indian Rights Association, the Association on American Indian Affairs, and for Quaker and other Indian-interest organizations. I have seen the excellent work that has been done by the BIA and the Division of Indian Health, both in construction of facilities and in the work of personnel. But I have also seen great unmet needs. It seems to me that our worst pockets of poverty are in Indian communities, and that the most economical way to take remedial action is through the existing agencies that are in the field and are acquainted with the problems.

### The Bureau of Indian Affairs Budget

I hope this subcommittee will allocate additional funds to the austerity budget presented by the Bureau of Indian Affairs (BIA). Additional funds are needed because the increase over 1964 in the Bureau's request is less than the rate of Indian population growth. Since the Bureau's budget includes mandatory salary increases or will, it represents a decrease in program to deal with America's worst poverty, worst housing, worst unemployment.

#### ADDITIONAL SCHOOLS IMPERATIVE

The rapidly increasing Indian population, and the Indians' realization that they must be educated to make their way in today's world, are requiring more school facilities. It is encouraging to see the many new schools, but too many children, too young, must go to boarding schools too far from home, or not go to school at all. In Alaska 700 native children each year finish eighth grade for whom there is no room in high school. And it is getting worse.

#### MORE VOCATIONAL SCHOOLS NEEDED

New opportunities for vocational training are excellent and are much appreciated by Indians, but the need is increasing. Not only are more vocational schools needed, but more of a vocational orientation is needed in the high schools to hold the interest of boys. It is, of course, a misfortune to the individual and a social and economic loss to the Nation when an able student drops out of school. And it is often the able student who just can't take any more of a curriculum which is deficient in meaning for him. There definitely should be a vocational high school in central Alaska.

### Indian Health Services

The Division of Indian Health is to be congratulated on the quality of the is doing, but the quantity is deficient. This deficiency can only be corrected by adequate appropriations. To meet current health and sanitation needs a total annual expenditure of $80 to $85 million is probably required. To develop such a program efficiently it may be best to make an increase of only $5 or $10 million now, but I consider it uneconomical just to hold the line, or to provide only for mandatory salary increases, when an expanded program is needed.

We all know the statistics—Indian health is America's worst. Alaskan natives age at death is about half that of the general U.S. population. Their infant death rate is 2.5 times higher, their postneonatal death rate is 5.3 times the average, and their tuberculosis death rate is 6.5 times greater, (new cases 16 times). The Alaskan death rate from respiratory diseases is 3.2 times, and the birth rate 2.1 times the general average.

#### INDIANS CANNOT OVERCOME THESE HANDICAPS BY THEMSELVES

Most Indians have an insufficient land base for self-sufficiency with their traditional skills, and they have not yet learned the skills to achieve well-being in today's economy. They are, therefore, unable to afford medical and dental care, and few communities can afford a wholesome water supply and sanitary waste disposal.

#### URGENT NEED FOR EXPANDED PROGRAM TO INCREASE PURE WATER SUPPLIES AND SANITATION FACILITIES

What I have seen across the country makes vivid the reality of the dry statistics: five times as many persons per room as the national average; 80 percent must

haul household water; 70 percent of the water sources are likely to be contaminated; 80 percent have inadequate waste disposal; and 12 percent have no such facilities at all—and it's worse in Alaska. I recall a family of 13 in Wisconsin that had to fetch water a mile in a homemade wheelbarrow; a family in Oklahoma that got its drinking water from a pit in a dry streambed; families in Idaho use irrigation ditches; communities in Arizona that get water for man and beast from rain water ponds, and some which had a well and water tank provided by the Government, but only for the cattle, illegal for human use. I mention these only because they are typical. I also remember hearing a doctor explaining to an Indian that he could not be sent to a hospital, because the contract funds were exhausted for that budget period. In Alaska many villages use river water, and consequently suffer greatly from dysentery. Many communities are located on permafrost, which complicates the problems of water supply and waste disposal. Some military bases can afford to flush toilets with fuel oil, but Eskimos can't. Villages that have schools, and especially those that have hospitals, are growing rapidly. This intensifies health, water and sanitation problems.

POPULATION EXPLOSION OF CONCERN

The Division of Indian Health should inform Indians and the natives of Alaska of the availability of birth control information, and supply it if they want it. Health services have saved so many lives that families are much larger than has been the case in the past. The natural resources of the land will not support this increased population. The social structure of Indian communities cannot absorb this increase either. As a result children must be sent away for adoption, or live more or less permanently in institutions; young adults must leave the home community whether they want to or not. Education must be geared to the needs of those who must leave home, with the result that the curriculum neglects the transmission of values from the Indian's own heritage. Thus, whether we want to eradicate poverty, to acculturate Indians to succeed in our culture, or to make it possible for those who wish to preserve values from their own tradition to do so, in any case, the control of population is essential wherever the economic base is meager.

CONCLUSION

I feel that my testimony would be incomplete if I did not express my high regard for the personnel I know in the Bureau of Indian Affairs and in the Division of Indian Health, and my general approval of their policies. They merit our financial support.

Senator BYRD. The subcommittee will now hear the distinguished senior Senator from Wisconsin, Senator William Proxmire.

FOREST PRODUCTS LABORATORY, MADISON, WIS.

## STATEMENT OF HON. WILLIAM PROXMIRE, A U.S. SENATOR FROM THE STATE OF WISCONSIN

FOREST PRODUCTS RESEARCH BENEFITS

Senator PROXMIRE. Mr. Chairman, I appreciate very much being able to appear before your committee. I am appearing in behalf of an appropriation for the Forest Products Laboratory at Madison, Wis.

As you know, this is far and away the most important research laboratory for forest products throughout the Nation. It has been a source not only of enormous benefit to the forest products industry, the wood industry, paper industry, and so forth, but the record shows that for every dollar that the Federal Government has put into the Forest Products Laboratory, $70 have come back in increased revenue to the Federal Government.

The merits of the Forest Products Laboratory are well known to you, I am sure, and other members of the committee, so with your

permission I will simply submit my statement for the record, and thank you very much for permitting me to appear.

Senator BYRD. Senator Proxmire, we always appreciate your appearance on behalf of this facility. We know of your great interest over a long period of time, and we know of your very strong support for it. The members of the committee are aware of the fine work done by this Laboratory and are aware of the need for additional appropriations.

Thank you, Senator Proxmire. Your printed statement will be included in the record.

Senator PROXMIRE. Thank you, Senator.

(The statement referred to follows:)

WOOD PRODUCTS INDUSTRY

Mr. Chairman and members of the subcommittee, I appear before you today in support of the appropriation request of $3.8 million for new construction at the Forest Products Laboratory at Madison, Wis.

A $200,000 appropriation was voted by the Congress in 1963 for planning of the Laboratory's expansion. These funds have been used to prepare the blueprints of the highly specialized addition to the plant facilities. The Wisconsin State Legislature and the board of regents of the University of Wisconsin have already approved the transfer of 12 valuable acres of land for the expanded facilities. Now the appropriation of $3.8 million is needed for the actual construction.

Since the planning stage for these additions is now completed construction should not be delayed. A considerable amount of research essential to the wood products industry and to the economy would be postponed or lost if the expansion were delayed. Moreover, costs of construction will presumably rise over time. In view of the fact that the land has already been committed and the plans are ready, fiscal 1965 is the time to begin work on the expansion.

The wood products industry performs a key role in our national economy and the Forest Products Laboratory has been of crucial importance in the continuing development of the industry. In 1961 the wood products industry provided direct employment for more than 1.1 million people, more than 7 percent of the total manufacturing labor force. The value of all forest products after shipment was $25 billion in 1961 or roughly 5 percent of the Nation's gross national product. Only about $1 billion of this amount was attributable to the value of raw materials. A substantial percentage of the remaining value is due to processes and techniques originated at the Forest Products Laboratory.

The wood products industry ranks sixth in terms of employment and eighth in terms of value added among American industries. However, public and private expenditures on wood products research now average only 0.35 percent of the industry's annual contribution to GNP. The national average for all manufacturing industries is 2.5 percent, roughly seven times higher.

The Forest Products Laboratory has been the primary source of research for the entire wood products industry, both in the development of new manufacturing techniques and new products. This work is widely acclaimed as being the finest and most extensive research in the field.

For example, the Laboratory has developed the basis for the use of hardwoods to produce pulp and paper products. The consumption of hardwood pulps in 1960 was 12 times that of 1920. However, continual requests are being received from industry for a new paper machine that can be used in the study of paper formation at speeds above those now used in industrial plants; i.e., 2,400 feet per minute. This area of research alone can lead to greater utilization of our low-grade hardwoods, little used species, and plant and forest residues.

The factory-built home industry has been created largely upon principles developed by the Forest Products Laboratory.

Yet the Laboratory is being severely hampered by inadequate facilities. It has an overcrowded 30-year-old plant which simply cannot do all the research work so vitally needed by the industry. For example, fundamental research on the performance of wood in fire is underway on a pilot basis, but expanded facilities must be available where large laminated beams may be loaded and their strength evaluated to obtain engineering data on strength and safety factors.

As far back as 1957, the President's Commission on Industrial Uses of Agricultural Products recognized the deficiency in wood products research and recom-

mended an expansion in the Forest Products Laboratory of more than fourfold. The Commission recommended a 10-year program in which funds for research would be increased by over a million dollars each year. Even with such an expansion the Commission estimated that the ratio of research expenditures to product value would still decline.

It is important to note that the Federal Government benefits directly from the types of research conducted by the Forest Products Laboratory. The Government is a major owner of forest lands and the principal supplier of the wood products industry's raw materials. About one-fifth of the annual cuttings in the United States in recent years have been from Government owned and managed lands. Government holdings comprise about 45 percent of the national wood resources at the stump. The value of these holdings increased with the value of the products which can be made from them and the primary function of the Forest Products Laboratory is to develop new and more valuable wood products.

Senator BYRD. Now, would Mr. J. Walter Myers, Jr., Mr. Herman E. Baggenstoss, Mr. J. V. Whitfield, and Mr. William Ross Brown, Jr., come forward?

FOREST FARMERS ASSOCIATION

## STATEMENTS OF J. WALTER MYERS, JR., EXECTUIVE DIRECTOR; J. V. WHITFIELD, WALLACE, N.C.; AND WILLIAM ROSS BROWN, JR., LAFAYETTE COUNTY, MISS.

FOREST WATERSHED MANAGEMENT RESEARCH

Mr. MYERS. Mr. Chairman, I am J. Walter Myers, Jr., and Mr. Whitfield and Mr. Brown will be unable to be here today. They did ask me to file their statements for the record if that was agreeable with you.

Senator BYRD. Their statements will be included in the record.

(The statements referred to follows:)

STATEMENT OF WILLIAM ROSS BROWN, JR.

Mr. Chairman and members of the committee, my name is William Ross Brown, Jr. I am a cotton farmer, small landowner, tree farmer, soil conservation district commissioner, and member of the ASC committee in Lafayette County, Miss.

I appreciate the privilege of testifying before this committee in support of forest watershed management research. I want to endorse Mr. Myers' statement and to speak briefly in support of one item.

First, let me say that Lafayette County is located among the eroding hills of north Mississippi. Much of this area has been abandoned for agriculture and is reverting to trees. The people of Oxford, the headquarters of the largest tree-planting program in the country, call it the Reforestation Capital of the World. Some 35 million pine seedlings are planted in this area each year. As farming retreats to the bottomlands, our forests assume greater importance in our economy both as a source of sawlogs and pulpwood and as a source of water for the industries that we are trying to attract.

Our surface and ground waters are becoming increasingly important, and the need for additional research on this renewable resource is becoming critical. A stronger research program on water and watershed management is essential if the South is to maintain the necessary supplies of water for an expanding population as well as industrial use. Forest owners must learn to manage their land not only for timber production, but also for flood control and water production. To help do these things, $450,000 is needed this year to build a forest hydrology laboratory in Oxford to house and provide facilities for an expanding program of watershed management research. This laboratory not only would serve the needs of north Mississippi but of the 235 million acres in the Southern Coastal Plain, 60 percent of which is forested.

Lafayette County is an ARA county. We have a sizable labor surplus now. Construction of this laboratory and its subsequent staffing would provide much needed jobs for some of our people.

The program of the Oxford Center of the U.S. Forest Service includes research on Coastal Plain hydrology, rehabilitation of eroded soils, and management of erosive forested watersheds. Briefly, the research staff is concerned about how forests can be managed to provide optimum quantity and quality of surface and ground water; how runoff and erosion can be reduced through revegetation of eroded areas; and what the effect of cutting intensity, logging, grazing, and prescribed burning is on sediment production and surface runoff.

The Oxford research staff has been working in crowded quarters and with limited equipment for the past 10 years on the campus of the University of Mississippi. Greater stress on basic research calls for a greater investment in office, laboratory space, and in research tools. Senator Stennis has recognized this in his request. I hope that the committee will see fit to act favorably on this item and on the other items proposed for the benefit of the South.

I thank the committee for its courtesy in hearing me.

### Water and Hydrology Laboratories

Mr. Myers. Thank you, sir. Mr. Whitfield, incidentally, in his statement very strongly supports the possible inclusion in the budget of a laboratory on water and hydrology at Coweeta, N.C., and Mr. Brown very strongly supports a forest hydrology laboratory at Oxford, Miss., and they have submitted some other items here that I might include with the record, showing some very graphic work that has been done in flood control and in water research.

Senator Byrd. Do you wish these to be submitted for the files of the committee?

Mr. Myers. Yes, if you would. They very graphically depict what is being done. I, myself, have prepared a statement which I would like to file for the record, and just summarize very briefly, if I may.

Senator Byrd. Surely, Mr. Myers.

Mr. Myers. It has certainly been our pleasure to appear before this committee on a number of occasions, and the committee has repeatedly demonstrated its interest in maintining a strong program of Federal forest research, and this has been most gratifying.

### Federal Forest Research Program

Senator Byrd. We have been glad to have you appear on previous occasions, and we are happy that you are here today.

Mr. Myers. Our group very strongly believes in cooperative participation from the private with Federal leadership, and we have been delighted to see the program developed in most areas in that respect.

In looking over the 1965 budget, we were very delighted to notice the increase nationwide for forest research and also the laboratory at Madison, Wis. We would like to speak, also, for a silviculture laboratory at Sewanee, Tenn., which is not currently in the budget, but funds have previously been authorized for architectural plans.

### Activity in the South

Those plans have been now completed, and Mr. Baggenstoss had a few details he would like to give in that regard following my remarks. But, basically, the Forest Farmers Association feels that the forest research activity in the South to keep pace with the growing needs will require an increase of $1 million spread over nine Southern States.

This, we feel, is clearly indicated. A small amount of this money is in the budget and there are certain items I am not familiar with.

Senator BYRD. Mr. Myers, will you kindly desist just for a little while. The subcommittee will recess, and as soon as I answer my name on the rollcall I will return.

(Whereupon a short recess was taken.)

Senator BYRD. All right, Mr. Myers. I believe you were in the middle of your testimony.

### SUPPORT FOR BUDGET INCREASES

Mr. MYERS. Yes, I was just mentioning that in reviewing the budget for 1965 we would have to notice certain increases in the budget. It is a little difficult to figure how much would be included for various activities, and we feel that to keep up with current needs approximately $1 million is needed, spread over nine States.

### ITEMS WARRANTING INCREASES

Actually the biggest item that we feel needs strengthening is the forest survey which is a very valuable inventory of forest resources which, I am sure, the Chairman is familiar with. There is $150,000 in the budget nationwide, but actually it would be very desirable if a level of $200,000 could be provided for the South alone.

I realize these things are not always possible in 1 year, but they could be used very efficiently. The insect and disease investigation control research could use a minimum of $160,000, and forest fire research could use $150,000 very effectively.

The silvicultural studies could use $100,000 and the utilization and engineering could use $200,000. Soil and water management could use $50,000 increase, naval stores $170,000, which would be to more fully activate the work in a new laboratory that is built and partially operational, and wildlife and range activities could very efficiently use an additional $100,000.

These items are all detailed in my testimony, and I do not want to take your time to read them in detail. They are in here, sir, and I would like to have them in the record. I appreciate your consideration.

Mr. Baggenstoss has a short statement in specific support of the Sewanee Laboratory.

Senator BYRD. All right.

### FOREST FARMERS ASSOCIATION

## STATEMENT OF HERMAN E. BAGGENSTOSS, REGIONAL VICE PRESIDENT

### SILVICULTURE RESEARCH LABORATORY, SEWANEE, TENN.

Mr. BAGGENSTOSS. I appreciate the opportunity of coming before you again. I am Herman E. Baggenstoss. I live in Tracy City, Tenn., which is in lower Appalachia. I am a weekly newspaper editor and a tree farmer.

I wish to thank this committee and Congress for providing $18,500 in the 1963 fiscal year budget for advance planning of the Silviculture

Research Laboratory facilities at Sewanee, Tenn. Our late Senator Estes Kefauver was vitally interested in this project and strongly supported it.

The Laboratory plans have been perfected, drawings and specifications completed, and a site has been selected. The actual building can begin as soon as funds are provided.

### President's Message Relating to Forest Land Resources

President Lyndon B. Johnson in his message on agriculture, presented to Congress on January 31, 1964, stated:

> Better use of our timber, wildlife, scenic, and other renewable resources of forest land presents a related and major challenge. Economically distressed areas often exist where there are heavy concentrations of forest lands.
>
> Yet, there is a great backlog of work to be done in these forests that can provide employment and strengthen our economy. I am directing the Department of Agriculture to speed completion of a comprehensive review and appraisal of our timber resources, and to accelerate forest research to find new methods of wood utilization, better timber management techniques, improved fire protection, and more effective use of forest ranges.

I think the President's message summarizes the case for the Sewanee Research Center. The conditions he describes could not have been better said of the area had it been specifically prepared for the Cumberland Plateau.

### Sewanee Project Endorsement

This project has the endorsement of the Keep Tennessee Green Association, the Elk River Development Association, the Grundy County Agriculture and Industrial Commission, the Tracy City Commercial Club, the Forest Farmers Association, and the Tennessee State Department of Conservation.

It is part of the long-range research program of the U.S. Forest Service. The research programs conducted at Sewanee will enhance the possibility of success for any fight on poverty which may be initiated for the Appalachia area.

### Need for Facilities

I feel that there is an urgent need to provide these facilities now. I am hopeful that the committee will give careful consideration to providing $200,000 this year for the Sewanee Silvicultural Research Laboratory.

Senator Byrd. Thank you, Mr. Baggenstoss, and thank you, Mr. Myers, for your good statements.

Mr. H. E. Ruark and Mr. C. A. Roberts.

### Georgia Forest Research Council, Macon, Ga.

## STATEMENT OF H. E. RUARK, DIRECTOR

### Southern Forest Fire Laboratory

Senator Byrd. Mr. Ruark, you are director of the Georgia Forest Research Council, I believe.

Mr. Ruark. Yes, sir. Thank you sir.

Senator Byrd. You have a prepared statement. Would you like to include it in the record?

Mr. RUARK. I would, sir, and I would like to make a few comments.
Senator BYRD. All right. You may proceed.
(The statement referred to follows:)

FOREST RESEARCH IN GEORGIA

Mr. Chairman and members of the committee, my name is H. E. Ruark, I am director of the Georgia Forest Research Council with headquarters at Macon, Ga. The council is an agency of the State of Georgia. We are responsible for coordinating, developing, implementing, and encouraging forest research in the State. It is a pleasure to appear before your committee and discuss forest research needs.

I am appearing before you to ask you to strengthen forest fire research at the Southern Forest Fire Laboratory at Macon, Ga., by adding $150,000 to the U.S. Forest Service's budget. Present funds are limited and provide for approximately one-half of the number of scientists needed at the laboratory. The additional funds will make it possible to undertake 75 percent of the programs planned for this facility.

To every forest landowner, wildfire is still the primary concern. A vice president of one of the South's largest forest industries wrote in a regional magazine in October 1963 that wildfire continues to pose the greatest threat to timberland management in the South. His statement could have applied to practically every one of 33 States lying east of a line from Minnesota to Texas. In 1963 many of these States experienced the worse fire season in a decade or more. North Carolina reported 185,000 acres burned in 1 day. Georgia's records show that three persons lost their lives fighting forest fires. In October, newspapers, national television, and radio programs reported raging forest fires in practically every State in the eastern half of the country.

We are particularly concerned with the large blowup fire which causes the greatest damage and is the most difficult to control. If we are to cope with the large blowup fire new knowledge is needed. For this reason I am asking that $150,000 be added to the U.S. Forest Service's budget for fire research at the Southern Forest Fire Laboratory, Macon, Ga.

So little is known about free-burning fires. There is a real and urgent need to determine the physical processes which govern the rate of energy output of free-burning fires. A greater understanding of the mechanisms of fire propagation and fire behavior is needed. When this basic knowledge is gained and placed into use the forest fire boss will be able to better predict fire spread and behavior. Of course, the information will add to better methods of fire control and fire safety.

Every forest landowner and firefighter is aware that weather plays a major role in fire behavior. Weather research is seldom approached from its cause and effect relationship with the ignition, behavior, and control of forest wildfires. Few attempts have been made to forecast directly fire behavior phenomena, yet this is a necessary natural extension of fire-weather forecasting for fire control planning. The warning of the pyramiding of fire conducive weather factors, such as high winds, high temperatures, low humidities and drought, leading to extreme fire danger and possible catastrophic wildfires, is of tremendous nationwide importance because a small percentage of fires and fire days account for most of the forest acres burned. Research in this field is extremely complex, calling for cross-discipline approaches in basic and applied physics, meteorology, chemistry, and forestry. The need for immediate application of findings lends urgency to research in fire danger rating systems and the prediction of both fire and weather behavior.

Prescription fires are becoming an integral part of the management scheme of many of our southern forests. Yet the lack of technical guides concerning fire use prevent achieving the full potential of this tool. To reach this greater potential within reasonable time, additional scientists are needed now.

These necessary research personnel can attack the critical problem of fuel rating. Forest fuels need to be classified according to ingition, rate of growth, and energy release for different weather conditions. Both laboratory and field evaluations will be required. With this type of classification, foresters can predict the behavior of a prescribed fire in a particular fuel type and measure the effect on components of a forest stand.

A fuel classification system will also benefit our fire control efforts. Our major concern here is with the prevention of blowups or conflagrations. Presuppression planning will be improved when dangerous fuel situations and conditions are

identified. When a wildfire's rate of growth and energy potential can be accurately and promptly classified following detection, control forces will be in a position to make a more effective initial attack and keep the fire small. Stepped-up research in attack strategy, logistics, and techniques will be necessary.

I ask you to increase the Forest Service's budget to provide $150,000 for the Southern Forest Fire Laboratory. New knowledge about fire behavior is urgently needed to help reduce heavy fire loss.

Mr. RUARK. I am appearing before the committee on behalf of the Southern Forest Fire Laboratory at Macon, Ga. This is a new laboratory. It is, in fact, the first one in the world and has been in operation for about 5 years. At the laboratory there are several projects underway—weather, measurement of fire danger, the prescribed use of chemical retardants, and also some basic studies dealing with basic information.

### THREAT OF AND LOSSES TO FOREST FIRES

Forest fires in the South, and other sections of the country, hold a great threat to our timberlands. In 1963, we had one of the worst fire situations in the eastern section of the country, the worst we have had in the last decade or so.

North Carolina lost 185,000 acres in 1 day. In Georgia, three persons died fighting forest fires some time during the day. I am not asking you or this committee to appropriate money for ordinary, everyday, small-size fires. It is the large blowup fire, or the conflagration-type fires, that bother us, and they are the fires where we suffered the greatest loss. They are the hardest fires to control.

New information is needed if we are to cope with this type of forest fire. And that is the reason I am here today. There is very little known about the free-burning fire. Very little or no research has been done, until the laboratory opened at Macon in 1959.

### EXPANDING FOREST FIRE RESEARCH

We feel there is a greater need for the understanding of fire propagation and fire behavior so that the fire bosses will know more how to cope with fires and plan their activities. In the weather end of the research there at the laboratory we have a weather forecaster and a weather section, but we would like to enlarge this section to extend weather information so that we will be able to forecast fire behavior.

### FORECASTING CONFLAGRATIONS

Today our weather forecasters can normally forecast tonadoes, hurricanes, and snowstorms, and so forth, but we have no information to help the forest firefighter that will forecast for him certain conditions that he might expect conflagrations to rise up overnight and to lose thousands of acres.

So we need to approach this from a keen standpoint with physicists, meteorologists, and chemists working together at the laboratory.

A second area within the prescribed burning field where fire is used as a management tool under control for many purposes under forest management.

### CLASSIFYING FUEL TO ASSIST FIREFIGHTERS

A third area is to classify fuel so that the firefighter may better know what he is up against so he can make his plans ahead of time.

City fire departments, for example, moving into a downtown area have already ahead of time classified certain buildings and upon call the alarm is a three-alarm, or a five-alarm fire, meaning they need more equipment.

This is what is needed in forest firefighters, and the laboratory is striving to give them this information. So what we need to know is more about wild fires, the rate of growth, the energy potential, so that it can be accurately and promptly specified in the forest fire so that the fighter came in with his needed forces to make the attack.

New knowledge is needed by the laboratory to help and benefit the forest firefighter in the South, and in other sections of the country.

Mr. Roberts is with me and would like to make a statement regarding naval stores research.

Senator BYRD. All right, Mr. Roberts.

AMERICAN TURPENTINE FARMERS ASSOCIATION

## STATEMENT OF C. A. ROBERTS, LAKE BUTLER, FLA.

NAVAL STORES RESEARCH

Mr. ROBERTS. Thank you, Mr. Chairman. I appreciate the opportunity of coming before you today. My name is C. A. Roberts. I am a forest landowner and a producer of gum for naval stores, and live at Lake Butler, Fla.

It is a pleasure to appear before this committee to represent the needs of the gum naval stores producers in the South. I am on the board of directors of the American Turpentine Farmers Association and have been an active member of the association for 25 years. That includes all the States.

Mr. Chairman, I would like, if it is permissible, to read a short statement.

Senator BYRD. All right.

Mr. ROBERTS. I am also proud to be a member of the Florida House of Representatives for the past 12 years. I am on the forestry committee and the appropriations committee.

STRENGTHENING GUM RESEARCH

The purpose of my appearing before your committee is to request that $70,000 be added to the U.S. Forest Service's budget to strengthen gum naval stores research at the Naval Stores and Timber Production Laboratory at Olustee, Fla.

This is something that will cut production, Senator, or cost rather, because we naturally use darkies altogether and we have had a bad time getting labor, or securing labor, and keeping it.

I would not think of trying to mislead you. It applies to 20,000 or 25,000 people. This appropriation would help that many people. I do not mean it would discontinue if we did not get it, but it would help.

I believe I filed with your secretary several copies of this so I will skip.

### Reducing Cost of Gum Production

The research program at the U.S. Forest Service's Naval Stores and Timber Production Laboratory at Olustee, Fla., must be strengthened if we are to reduce the high cost of producing gum. Already competitive synthetics have entered the market.

Unless the cost of producing gum can be reduced, unemployment in our rural areas will continue to rise. It is through research that we must turn to keep this important segment of our southern economy on a paying basis. I do not have to tell you that where there is unemployment, welfare increases as does unemployment insurance payments.

I believe I will also leave that out because this is also in the statement.

### Increasing Research Budget at Olustee, Fla.

I ask you to increase the research budget at Olustee, Fla., by $70,000 so that this small but important industry in gum naval stores, which gives employment to a large number of people from South Carolina to Texas, might continue to survive.

Research designed to reduce production cost must be intensified. There are many facts which indicate increased demand for gum naval stores products—only, however, if they can be produced at less cost than competitive products.

Approval by you of $70,000 for naval stores research will contribute tremendously to the efforts of the South in sharing in the Nation's growth and well-being.

Mr. Chairman, I have one of my largest producers from Florida and he is with me, and I would appreciate the privilege of introducing him. He is Mr. Pritchett, it is Marvin H. Pritchett. I guess I should add that he happens to be my son-in-law, so I was proud for him to come along with me.

Senator Byrd. That makes it more enjoyable.

Mr. Roberts. Thank you, Senator.

### Member of Florida House of Representatives

Senator Byrd. I notice you are a member of the Florida House of Representatives. How long have you been a member of the house?

Mr. Roberts. I have been a member for 12 years and this will be 14 years since I was sent up without opposition last Tuesday.

Senator Byrd. How many days a year does your lower house meet?

Mr. Roberts. Sixty to ninety.

Senator Byrd. Do you meet every year?

Mr. Roberts. Every other year. We are thinking about meeting every year.

Senator Byrd. On how many committees do you serve?

Mr. Roberts. I am on eight.

Senator Byrd. I was a member of our house of delegates.

Mr. Roberts. I always thought you were a man about 60 or 70 years old, and now I find it different.

Senator Byrd. I started out in the house of delegates in 1947. I enjoyed my service there.

Mr. Roberts. I went to the house with a boy and he was just 21, so you just became 21 when you got over there, too.

Senator BYRD. I was a little older than that.
Mr. ROBERTS. Thank you very much.
Senator BYRD. Thank you, Mr. Roberts.
We will now hear from Mr. Robert F. Lederer.

AMERICAN ASSOCIATION OF NURSERYMEN

## STATEMENT OF ROBERT F. LEDERER, EXECUTIVE ASSOCIATE

DEPARTMENT OF THE INTERIOR APPROPRIATION REQUESTS

Mr. LEDERER. I would like to file two statements today.
Senator BYRD. All right. I have both statements in my hand and they will both be included in the record.
(The statements referred to follow:)

My name is Robert F. Lederer and I am executive associate of the American Association of Nurserymen with offices at 835 Southern Building, Washington, D.C. The American Association of Nurserymen is a trade association composed of about 1,400 member firms engaged in or serving the nursery industry located in 48 States.

We have a very definite interest in two areas of the Interior Department appropriation bill, Mr. Chairman. With your permission I would like to speak briefly in favor of an increase in the appropriation for the North-Central Forest Biology Laboratories of the U.S. Forest Service located in Delaware, Ohio. Additionally I would like to file testimony in opposition to items in the appropriation bill which appear under "Title II—Related Agencies, Department of Agriculture, Forest Service." The American Association of Nurserymen continues to strongly oppose any appropriation which will make it possible for the Federal Government to produce tree seedlings. Our testimony on this subject will, in our opinion, prove our case.

Mr. Chairman, we would like to go on record in support of an additional sum of $150,000 for the Central States Forest Experiment Station in Delaware, Ohio. To my knowledge, this is the first time that a representative of the nursery industry has appeared before your committee to request an appropriation for a Forest Service activity. We feel, Mr. Chairman, that a research opportunity has come into being which, if successful, could lead to a savings to National, State, and local governments alone of many millions of dollars each year without even considering private property owners.

There have now been developed by the chemical industry a number of materials known as "systemics." These are chemicals which, it is my understanding, can enter the tree either by actual injection, through the roots, or through the leaves. However they enter, they become a part of the system of the tree in a manner somewhat similar to injection of vaccine into a human being. An example of what a systemic could accomplish can be taken from your own garden where you see a Japanese beetle, for instance, devour a rosebush while he does not touch the leaves on a dogwood tree because he finds them unpalatable.

Economically the most serious tree disease which shows every possibility of being cured by the use of systemics is the well-known Dutch Elm disease. Just by coincidence last Monday's Evening Star carried a long article concerning tree problems of the city of Washington. May I quote one paragraph:

"Dutch Elm disease is one of the few diseases which has been controlled here. Since 1947, when it was discovered, it has taken 10.9 percent of the city's American elms, which arch over streets the way no other tree does. The tree is so valued that records are kept of every one that dies. Last year the death toll was 439, about 1 percent of the 40,000 still alive."

Nearly 11 percent of the elm trees of this city dead—a city in which elm disease is considered to be "controlled." It is estimated that each one of these trees costs $250 for removal alone, without considering the value lost. In this city to remove just those trees killed by Dutch Elm disease in one year the cost was nearly $110,000. Dutch Elm disease is only one of the economically important pest problems that show great promise of being controlled or even eradicated by the use of systemics. Others would be oak wilt, gypsy moth, European pine shoot moth, plant viruses, and even the Japanese beetle.

We strongly urge, Mr. Chairman, the addition of $150,000 to the $25,000 proposed in the budget for the purpose of setting up a full-scale program at the North-Central Forest Biology Laboratories in Delaware, Ohio, to evaluate the many systemics which have been developed by industry.

I this program is successful in finding materials to control only Dutch Elm disease, it is easy to see that the city of Washington alone, in one year, will save more than the operating cost of the project.

Thank you for the opportunity of appearing before you today.

Members of the American Association of Nurserymen respectfully urge the subcommittee to take particular note of an item of approximately $300,000 for forest tree planting under State and private forestry cooperation (Clarke-McNary, sec. 4 funds) and an item of $1 million for "assistance to States for tree planting" (title IV of the Agricultural Act of 1956) in the Forest Service budget. This association has testified in opposition to both of these unnecessary Federal appropriations for a number of years. The Chamber of Commerce of the United States lists them in its publication, "Recommended Reductions or Savings for the 1965 Federal Budget."

The appropriation for Clarke-McNary section 4 funds in 1962 was $296,000. It was the same last year. We are informed by the Department of Agriculture that in 1962 these funds were distributed to 46 States, each State receiving approximately $4,200 which had to be matched. This would indicate that the total funds distributed were about $100,000 less than the total amount appropriated; the $100,000 was withheld for "administrative purposes." This statement may be substantiated by referring to page 1225, table B of the hearings before the Interior Appropriations Committee of the Senate which cover "Interior and Related Agencies Appropriations for 1963."

The first Clarke-McNary section 4 funds were appropriated in 1924 "to stimulate tree planting in the various States." In that year, $226,722 of State and private funds were expended for the same purpose, or four times the $50,000 Federal appropriation. In 1962, State and private expenditures (according to the Forest Service's own figures) amounted to $6,710,000, or 33 times the Federal Clarke-McNary funds. This is a Federal appropriation which is no longer needed.

The $1 million appropriated for assistance to States for tree planting is designed to be matched by the States and is for "planting, seeding, or site preparation and natural seeding." States taking advantage of these funds are required to submit a plan for use of this money which then must be approved by the Federal Government before an appropriation is made. According to the Forest Service, during fiscal 1962, 25 States submitted plans that were approved (p. 1120). These plans, we are informed, are not available except in the States concerned, so it is not possible to know if the $1 million was used for the purchase of seedlings or for other uses. Mr. Swingler of the Forest Service stated during these hearings, "We cooperate with the State foresters in producing and planting trees on State and privately owned land" (p. 1121).

Chairman Hayden stated (p. 1056), "Part of the funds asked for reforestation and stand improvement will be used to produce trees to meet the demands of a larger tree-planting program." And then requested the Forest Service to place in the record a list of existing as well as planned nurseries. The resulting statement on forest tree nurseries (p. 1057) reveals the fact that there are already existing 13 nurseries in 11 States with 4 more under construction in 3 States. The Forest Service estimated that $1,205,000 had been expended on these new nurseries in 1962 and that the proposed construction cost for fiscal year 1963 would be $680,000. It seems perfectly obvious that substantial sums of Federal money are being expended to create competition for commercial nurseries.

The type and amounts of seedlings which are destroyed each year by nurserymen is information which is not systematically recorded. However, there are enough recorded samples to point up the fact that this is a serious problem for seedling-producing nurserymen. In the State of Michigan, 10 million 3-year-old Austrian pine seedlings were offered to the State conservation department for planting on State-owned land and for reforestation and conservation purposes. Subsequently, 10 million Scotch pine seedlings were offered. When the offers were made the State was informed that if the seedlings were not accepted they would have to be destroyed because "they were planted 3 years ago when the seedling growers were assured that planting stock for the conservation reserve section of the soil bank would be purchased from private growers." Michigan nurserymen explained to the State that, "Competition from State and Federal tax-tree and tax-supported nurseries led to reduced sales and resultant over-

production by the private nurseries. As a result private growers plowed under several million seedlings last year (1960) that had been planted 4 years ago, because they had grown beyond planting age and size." The offer of Michigan nurserymen was turned down and Federal-State grown nursery stock used.

We have just recently been advised of a seedling grower in the Middle West who destroyed 300,000 seedlings of deciduous trees in 1962 as well as 50,000 red cedar seedlings. The latter production was based on estimated requirements furnished by the State forester of Kansas but the seedlings, instead of being purchased from private nurseries, were secured from the Federal nursery at Halsey, Nebr. As a result of this type of unfair competition, commercial nurserymen have drastically curtailed their production of seedlings. Their market has been taken away from them by their own tax dollars.

We respectfully submit that the commercial nursery industry is well able to produce all of the seedlings that are needed for reforestation and conservation planting and produce them more economically than Government-operated nurseries, and incidentally they will pay taxes to the Federal Government on business done. We hear a great deal these days of reducing taxes and increasing job opportunities. The nursery industry asks only for the right to sell its products in the marketplace without unfair, unrealistic competition from the Federal Government. We welcome the opportunity to pay taxes on the business done (something Government does not do). Give us back this portion of our rightful market and we will create jobs.

We respectfully urge that the $300,000 appropriation for State and private forestry cooperation and the $1 million appropriation under assistance to States for tree planting be removed from the Forest Service budget.

### North-Central Forest Biology Laboratory, Delaware, Ohio

Mr. Lederer. The first covers what we consider to be one of the most important research opportunities to present itself to the horticultural field in many years. Our request is that $150,000 be added to the $25,000 proposed in the budget for the purpose of setting up a full-scale program at the North-Central Forest Biology Laboratory in Delaware, Ohio, to evaluate the many systemics which have been developed by the industry.

### Dutch Elm Disease and Other Tree Enemies

Systemics are chemical materials which show great promise of saving literally millions of dollars of National, State, and local government funds alone without even taking into consideration savings to private property owners by controlling or even possibly eradicating Dutch elm disease and other serious street and forest tree enemies.

It is my understanding that systemics work in a tree or shrub in a manner somewhat similar to injection of vaccine into a human being—giving resistance to certain diseases.

### Cost To Remove Diseased Trees

Here in Washington alone last year—just to remove trees killed by Dutch elm disease it cost nearly $110,000. I understand that in Washington they consider this disease to be "in control." They lose only 1 percent a year.

That figure, of course, does not include the cost to replace trees, or the cost of present control methods, or the esthetic value lost with these big elms that we have always loved here in town.

Our association has never before asked for money for any part of the Forest Service, Mr. Chairman, but we feel very strongly that the expenditure of a very small sum now will save many times its amount in just this city alone each year.

### Opposition to Tree Planting Appropriations

The other statement I would like to file is in opposition to $1 million for tree planting under title IV of the Agriculture Act of 1956 and $300,000 for the same purpose under Clarke-McNary section 4 funds.

It occurs to me, if the Congress adopts both of these suggestions, the Treasury will end up $1,150,000 ahead, it would not otherwise have.

Senator Byrd. Thank you, Mr. Lederer.

We will now hear from Mrs. David Wallace, director, Oyster Institute of North America.

### Oyster Institute of North America

## STATEMENT OF MRS. DAVID WALLACE, DIRECTOR

### Bureau of Fisheries

Senator Byrd. Mrs. Wallace, I am sorry you have been kept waiting. We are glad to have you here and look forward to your statement.

Mrs. Wallace. It is a pleasure to appear before you, Mr. Chairman, on a shell fishery matter. I am here with Mr. Kleb of New York to support the budget of the Bureau of Fisheries, and most important that portion which deals with the shell fisheries, the industry we represent.

We deeply appreciate our Government's aid to our industry which we consider essential, and we hope to increase the production of nutritious food. There are two amendments that have been added to the appropriation which we hope will get your approval.

### MSX Brood Resistance Disease Research

One is extending the MSX brood resistance disease research program which is organized and is doing very well and we are very hopeful.

We may not need the money. I hope this does not hurt our cause, but if we should need it, we hope we do not disperse the team working on it and lose some very valuable information.

### Sea Clam Industry Research

We also ask for money to set up a research program on the sea clam industry. Mr. Kleb came with me to answer any questions on that industry. He is most knowledgeable on any aspect of the sea clam industry.

Senator Byrd. You have been an excellent witness. My clerk, Mr. Eaton, tells me that the two New Jersey Senators have proposed the surf clam survey.

Mrs. Wallace. Yes, they have, and Congressman Glenn in the House has put it into the House bill.

Senator Byrd. With advocates like these distinguished Senators, it certainly seems to have persuasive sponsorship. I would say with an excellent witness like you it is doubly persuasive.

Mr. Kleb, would you like to add to what Mrs. Wallace has said?

EASTERN SEA CLAM PACKERS COMMITTEE OF OYSTER INSTITUTE

## STATEMENT OF WILLIAM KLEB, CHAIRMAN

MSX AND SEA CLAM RESEARCH

Mr. KLEB. I would just like to say the same things she said in regard to our industry's plight. I would say that we are in dire need of this research and exploration which is on the agenda.

Mrs. WALLACE. You have it well documented, the need and for what specific purposes the money would be used if appropriated. It has been well documented both in the House and the Senate, and we hope to spare you that. I think you have a brief statement right over there about the sea clam industry. There is one on the MSX and one on the sea clam.

Senator BYRD. Would you like these to be inserted in the record?

PRIVATE RESEARCH PROGRAMS

Mrs. WALLACE. Yes. Now the sea clam industry, itself, has appropriated and raised by voluntary cooperative efforts $27,000. We have research programs on our own and with that have captured the imagination and support of the Bureau of Commercial Fisheries, and they are supporting us the whole way.

(The statements referred to follow:)

PROPAGATION OF DISEASE-RESISTANT OYSTERS

One important reason for the steady decline in oyster production in the United States has been the serious losses by epidemic disease in the most productive areas of the Atlantic coast. Recurrence of such catastrophes can be averted by developing disease-resistant strains. The techniques for such developments are well understood for domestic animals, and the same principles can be applied to shellfish.

Public Law 87–580 authorized $100,000 for such purposes, and funds were made available in the fiscal year 1964 budget of the Bureau of Commercial Fisheries. The States of New Jersey, Delaware, Maryland, and Virginia are contributing $50,000 in matching funds, and contracts with the States, who will do the research, will be signed soon. Unfortunately, Public Law 87–580 specifically limits the study to 1 year. The complicated and painstaking studies necessary to achieve the objectives of this work cannot be completed in such a short time, and much of this effort will be wasted unless funds can be provided for a longer period.

It is necessary to carry the progeny of the selected stock through at least one generation in order to test the effectiveness of the experiment. This will require a minimum period of 3 years before preliminary results, indicating the possibility of success can be achieved.

ATLANTIC COAST SURF-CLAM FISHERY

The molluscan shellfish industry of the United States has suffered a steady decline in production in almost all coastal areas of the country. Total U.S. oyster production is less than one-third of the level in 1900. Total clam production, exclusive of surf clams, has dropped almost 50 percent since the end of World War II.

The relatively new surf-clam fishery, on the contrary, has shown a strong and steady rise in production since the end of World War II. Before 1945 this was an insignificant fishery. Today, it produces well over 30 million pounds of meats annually, and accounts for about 60 percent of total U.S. clam production.

The present fishery covers only a very small area of the total range of this valuable clam. Abundance of clams on grounds now being fished is rapidly dropping to unprofitable levels. Two avenues of approach are needed urgently: (1) develop more efficient gear to harvest surf clams economically on grounds less

accessible or less densely populated, and (2) increase our knowledge of the biology of the resource to provide a scientific background for rational utilization of the resource.

OYSTER PRODUCTION DECLINE

Senator BYRD. Tell me something about the decline in oyster production.

Mrs. WALLACE. I say the "P's" have us, pollution you know. Pollution hits us from so many different directions. If it does not hurt the species itself, it will eliminate it in its larval form. Of course, there are so many different kinds of pollution.

It often will eliminate one of the links in a food chain and the oysters grow up to a certain point, stop and die, because that next bit of plankton, or whatever it might be is missing. We have been working very, very hard on pollution legislation.

Then, we have in our States some laws that absolutely would work against the industry. Believe it or not, they were made in good faith, but tradition plays a big part here. We have predators. Everyone likes the oyster, including man.

MSX RESEARCH

You might include him as a predator. Then, in about 1957 we had MSX which is a multinucleid protazorn, the type of which they cannot even decide. They call it haplosporidiun, but they do not know what it is.

This research provides for additional investigations on that. We feel in our bones we are near a real breakthrough on this, when we will be able to transmit this disease and once we do, we will be able to break that link, you know, find out what it cannot stand, apply that pressure, and thereby bring back the oyster in New York, the Delaware Bay, and Chesapeake Bay, which have been the locations of that.

Last year the decline was 7 million pounds, chiefly because of this disease. We do not like to say "disease." We say ailment or scourge.

AILMENTS OR SCOURGES

Senator BYRD. What are some of these ailments or scourges?

Mrs. WALLACE. Dermosistidium is a fungus which operates in the summertime. They are hit in the summertime. You think you have a nice set of oysters in the spring and in the fall you do not. High salinity, crowded conditions, all make for epidemic proportions of dermosistidium.

Now there are many other diseases, parasites or coinhabitants which may or may not harm the oyster to the point of being useful. Would you like some other names?

Senator BYRD. I do not recognize any of them. I was interested in your statement.

Mrs. WALLACE. There is a group of fungi that attacks and then there is a group of protazoan. One is called the SSO organism. It is found only on the Virginia and Maryland seashore, you know, the oceanside. That is the only place it will grow.

But, then, we have a large decimation with accidents, accidents which wipe out a big area. It does not take much.

Senator BYRD. Your approach, therefore, is to develop disease-resistant strains?

Mrs. WALLACE. Yes, sir; on this particular one.
Senator BYRD. On this most serious one, I suppose.
Mrs. WALLACE. That is by far the most serious.

STATES SHARING RESEARCH COSTS

Senator BYRD. Do some of the States share in the cost of this?
Mrs. WALLACE. Four of them; Delaware, Maryland, Virginia, New Jersey. All of their facilities, you know the State facilities, private organizations, Rutgers University is one of our leaders, and then the Federal laboratories are all in a common effort trying to break this.
Senator BYRD. Are these the most productive areas in the country?

CHESAPEAKE BAY

Mrs. WALLACE. Absolutely. Japan has said that Chesapeake Bay could feed our entire nation.
Senator BYRD. Our Nation?
Mrs. WALLACE. Their nation. Their inland sea is nothing comparable with Cheaspeake Bay and its nutrients that are available for seafood, it has the right temperature, the right interchange of waters, everything works together in the Chesapeake Bay.

DELAWARE BAY

The second most valuable bay is the Delaware Bay, but unfortunately it is far more polluted so that they have not been able to realize their resources.
Senator BYRD. What other areas are oyster-producing areas?

OYSTER PRODUCING

Mrs. WALLACE. We have a big operation on the west coast. Are you familiar with that?
Senator BYRD. No.
Mrs. WALLACE. You will be, because the seed from that is brought over by freighter taking a journey of 3 weeks to this country and planted. Our waters in the Northwest are too cold for the reproduction of the big oyster.
It gets this big. This is a canned oyster product. But with the scarcity here, of course, they are beginning to develop a raw bar stock oyster, too.
Senator BYRD. How does this big oyster compare with the oysters in the Chesapeake Bay?
Mrs. WALLACE. It is a different species. If prepared as directed, it is superb. But if you treat it as an eastern oyster, you will have a disappointment on your hands. We so-called wine broiled them for a party we had here, and nobody ever got around to the beef and chicken. They are superb.

GULF OF MEXICO

Then, there is the gulf, of course. The gulf at this moment is the healthiest segment of our oyster industry, the southern oyster.

Senator BYRD. This disease, as you did not want to term it, has not spread to the gulf, has it?

Mrs. WALLACE. No, it does not have that. It has proportionately more dermosistidium. It occurs in the third year, so we harvest them in the second year and take care of that.

You can tell ahead of time and in that case we spread them out. Mr. Kleb harvests his products in the sea.

Senator BYRD. Do you have anything further, Mr. Kleb?

### CLAM RESEARCH

Mr. KLEB. I would like to say that our situation takes us out in the ocean from 12 to 20 miles offshore, and our product is one of the clams you never hear anything about anything happening to, because every one of our clams is cleaned. There is so much that we have to know about this clam.

Our beds are being depleted. This is the last area that we know of where we are working. We know that these clams spawn every year. We do not know where the spawn goes. We have searched hither and yonder, and we do not know too much about this clam, although we have been in the business for 25 years.

### DEVELOPMENT OF BEDS

As I said, we are about at the end of our rope in regard to further beds.

Mrs. WALLACE. You know of this clam. It is the one that comes in a can, and you mix it up with cream cheese, and it makes a marvelous bit. That is the industry we are talking about here.

Senator BYRD. Fine. Your statements have been included in the record; and you made a fine statement extemporaneously. You have made a very good presentation. Thank you.

Dr. Jackson M. Anderson, assistant executive secretary of the American Association for Health, Physical Education, and Recreation, will be our final witness, I believe, here today.

AMERICAN ASSOCIATION FOR HEALTH, PHYSICAL EDUCATION, AND RECREATION

## STATEMENT OF DR. JACKSON M. ANDERSON, ASSISTANT EXECUTIVE SECRETARY

### BUREAU OF OUTDOOR RECREATION BUDGET REQUEST

Dr. ANDERSON. Thank you, Mr. Chairman. I am, for the record, Jackson M. Anderson, and I want to express the appreciation of our association for the opportunity of appearing before this committee.

I am asking your permission, Mr. Chairman, since this is so brief, to make the points I have made in my letter.

Senator BYRD. Yes.

Dr. ANDERSON. The American Association for Health, Physical Education, and Recreation, which is a department of the National Education Association, strongly supports the Bureau of Outdoor Recreation's budget request of $2,700,000 for the fiscal year 1965, which is now being considered by your committee.

The officers and members of our association have been quite impressed with the splendid work which has been accomplished by the

Bureau of Outdoor Recreation during the short time it has been in existence. In spite of its limited resources, the Bureau has given aggressive leadership to an area of concern which we feel is vital to the welfare of our Nation. However, the Bureau cannot continue its fine work without the funds requested.

### Federal, State, and Local Coordination

The preparation of a nationwide plan is of vital importance to assure coordinated action at Federal, State, and local levels. The 35,000 members of our association are organized into 50 State associations.

They are particularly concerned about the important impact the Bureau's program will have at the State and local levels. They are looking to the Bureau for assistance in developing statewide recreation plans which will reach down into their local communities and will also be an important part of the overall nationwide plan.

The requested funds will also make possible the coordination of important recreation studies. Another aspect of the Bureau's program in which we have a keen interest is the help which will be given to the preparation of the necessary leadership for outdoor recreation programs.

### Demand for Outdoor Recreation Exceeding Supply

With an exploding population, higher incomes, shorter working hours, and longer vacations, increasing millions of people will be seeking outdoor recreation each year. The demand for outdoor recreation is already far exceeding the supply. If the Bureau of Outdoor Recreation is to give the needed leadership in helping to solve this important problem, the requested appropriation must be forthcoming.

We urge your support and that of your committee in approving this budget request which we feel is vital to make possible adequate outdoor recreation opportunities for the citizens of our country.

This completes our thinking on this, Mr. Chairman, and if you have any questions, I would be happy to try to answer them.

Senator Byrd. I have no questions, Dr. Anderson. I again express appreciation for your appearance before the subcommittee today.

### Conclusion of Hearings

This concludes the hearing of this subcommittee for the fiscal year 1965 budget for the Department of Interior and related agencies. The committee will stand adjourned.

(Whereupon, at 12:50 p.m., Friday, March 6, 1964, the hearings were concluded.)

## Additional Material for the Record

(Clerk's Note.—At the direction of the Chairman, the following material will be included in the record.)

(The material referred to follows:)

### Letter From Charles H. Stoddard, Director, Bureau of Land Management, Clarifying Testimony Regarding Fees Charged for Use of Facilities Provided in Campgrounds on Public Lands

U.S. Department of the Interior,
Bureau of Land Management,
*Washington, D.C., March 5, 1964.*

Hon. Carl Hayden,
*Chairman, Committee on Appropriations,*
*U.S. Senate, Washington, D.C.*

Dear Mr. Chairman: I would like to clarify one point in my testimony before the committee on the Bureau of Land Management's appropriation. The question was asked by Senators Bible and McGee whether fees would be charged for the use of facilities provided in campgrounds on public lands and possible relationship to the land and water conservation fund bill.

That bill, as reported to the House, provides that no entrance or admission charge for recreation use of the public domain per se could be made. The language of the bill is clear on this point: "Entrance and admission fees may be charged at land or water areas administered primarily for scenic, scientific, historical, cultural, recreational, or wilderness purposes." This means that no recreation entrance or admission fee could be charged to an entire grazing district, for example, because such an area, even though it might be used for simple recreation purposes, is not administered primarily for any one of the specified purposes. With respect to entrance and admission fees, the House Interior Committee report on the fund bill (H. Rept. 900) emphasizes that "the bill will not be applicable to areas where recreation is purely incidental to another major purpose of the area, to areas where neither Federal personnel nor Federal facilities are provided for the recreationist, * * *"

I hope this will clarify any confusion that may have been left as a result of my statement, and I will appreciate your incorporating it into the record.

Sincerely yours,

Charles H. Stoddard, *Director.*

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### Letter From Senator George McGovern Urging Additional Funds for Law Enforcement

U.S. Senate,
Committee on Agriculture and Forestry,
*March 12, 1964.*

Hon. Carl Hayden,
*U.S. Senate,*
*Washington, D.C.*

Dear Carl: I have been contacted by William Whirlwind Horse, president of the Oglala Sioux Tribal Council at Pine Ridge, S. Dak. Mr. Whirlwind Horse is an old and respected friend of mine and I value his judgments.

He indicates a great need for an additional $100,000 in Bureau of Indian Affairs appropriations for fiscal 1965 on the Pine Ridge Indian Reservation, to be used for law enforcement. He has supported this request with documentation and certification regarding this need.

Permit me to say that I would personally appreciate any consideration you can give to this request at the markup session. It appears that the request is modest and I can certainly subscribe to its need.

With warm personal regards, I am,

Sincerely,

George McGovern.

STATEMENT BY SENATOR GALE W. McGEE CONCERNING MANAGEMENT OF THE WYOMING ELK RANGE

I have been greatly concerned about the worsening condition of much of our rangeland that is of vital importance to our herds of big game. In my State wildlife constitutes an important resource and hunting of big game, such as elk, is an important recreational pursuit as well as being an income-producing activity. In many places big game is in direct competition with domestic livestock for the scanty herbage, and in other places overpopulation of elk has severely damaged the vegetative cover, disturbed the soil, and caused excessive erosion. I believe a sound program of research should be undertaken by the Forest Service at Laramie to determine how best to manage these big-game ranges so as to maintain a good level of population in harmony with other uses.

I have asked the Forest Service to supply me with information as to the problem, research needed, and what the estimated cost would be. I ask that the material they supplied at my request be placed in the record.

(Statement from Forest Service referred to by Senator McGee follows:)

IMPROVEMENT AND MANAGEMENT OF ELK RANGE IN WYOMING

The elk herds of Wyoming are nationally known, both for their esthetic qualities and for their association with sports hunting. Countless numbers of tourists visiting such places as the Grand Teton and Yellowstone National Parks and adjacent national forests enjoy seeing the animals. Hunters harvested approximately 7,000 elk in 1962 while enjoying nearly 30,000 man-days of recreation.

Management of these elk herds is complicated. Critical ranges have been overused, not only by the elk but also by livestock using them either simultaneously or at different seasons. This range abuse has serious impacts on both watershed values and fish habitat. There are also very direct relationships between elk habitat management and timber management. For example, clear cutting lodgepole pine or logging other forest areas is often followed by increased forage production and a concentration of elk in localized areas. This kind of elk range is transitory and serious conflicts frequently develop in the supply and demand for forage and the regeneration of the forest.

Research is needed to determine the interrelations between elk and livestock which will permit restoration of abused ranges. The program of work would be designed to develop and evaluate management systems to allow efficient and harmonious use of forage resources while stabilizing soils in critical watersheds. Where ranges are so deteriorated that primary native forage plants have been destroyed, additional research is needed to find ways of improving these areas artificially. Management methods must also be developed to allow maximum use of transitory ranges created by cutting timber while at the same time permitting new stands of timber to develop.

The Forest Service short-range plans call for at least $90,000 to implement the research when the financial situation makes such a program feasible. No funds are available in the fiscal year 1965 budget for this research. The recently completed Forest Range and Watershed Laboratory at Laramie is equipped to facilitate basic ecological and physiological research to support work done in field locations. Results obtained through this project would be generally applicable to elk habitat throughout the Rocky Mountains.

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LETTER FROM CHARLES F. SCHWAN, JR., DIRECTOR, WASHINGTON OFFICE, THE COUNCIL OF STATE GOVERNMENTS, CONCERNING ADDITIONAL FUNDS FOR U.S. GEOLOGICAL SURVEY

Hon. CARL HAYDEN,
*Chairman, Subcommittee on the Department of the Interior and Related Agencies, Senate Committee on Appropriations, the Capitol, Washington, D.C.*

DEAR SENATOR HAYDEN: It is my understanding that increased appropriations for the water quality program of the U.S. Geological Survey were deleted by the Bureau of the Budget because of a possible duplication of effort by the Survey and the U.S. Public Health Service. Later, in testimony before your Appropriations Subcommittee, it was stated that the Survey had sufficient funds to carry out its program with respect to surface and ground water aspects, but that it lacked $200,000 to match State offerings with respect to the Federal-State water quality program.

Obviously there would ordinarily be no involvement by the Council of State Governments in a matter of this nature but, in this instance, we are concerned because a portion of the Geological Survey appropriation is used to match on a 50–50 basis State-contributed funds in order to accomplish a predetermined water program of a State as well as the Federal agency. An insufficiency of funds made available to the Survey seriously impedes the work of the State involved. Secondarily, the work of the Geological Survey with its own funds additionally supplies a great deal of information that is essential to the States for planning and carrying out water development and conservation programs.

As we understant it, the denial of additional funds to the Geological Survey was based on an internal matter within the executive branch, toward the resolution of which significant progress has been made. While we understand and sympathize with the aim of avoiding possible duplication of work, we are concerned that paying exclusive attention to the accomplishment of this aim may jeopardize a longstanding Federal-State program.

It occurs to us that a possible course of action might be to reprogram the Survey's 1965 appropriation so as to enable the Survey to proceed on schedule to match State-contributed funds with some kind of "gentlemen's agreement" that the Bureau of the Budget would transmit as soon as practicable a supplemental 1965 appropriation to restore the reprogramed funds to those items of the Survey's program from which they would be taken.

Thank you for your consideration of this important matter.

Yours very truly,

CHARLES F. SCHWAN, Jr.,
*Director, Washington Office.*

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LETTER FROM SENATOR HARRISON A. WILLIAMS, JR., URGING ADDITIONAL APPROPRIATIONS FOR THE ATLANTIC MARINE GAME FISH RESEARCH CENTER AT SANDY HOOK, N.J.

MARCH 12, 1964.

Hon. CARL HAYDEN,
*Chairman, Interior Appropriations Subcommittee,*
*U.S. Senate,*
*Washington, D.C.*

DEAR MR. CHAIRMAN: I appreciate very much this opportunity to submit a statement concerning the need for additional appropriations for the Atlantic Marine Game Fish Research Center at Sandy Hook, N.J. As you know, I have been vitally interested in the Sandy Hook Laboratory since it was first established in 1960.

The work carried on at Sandy Hook is not of concern only to the economy of New Jersey and the other Atlantic Coast States or to the fishermen of the area. Its program is crucial to an increasingly important segment of our entire economy. Today there are more than 7 million salt water fishermen who spend $700 million a year for bait, equipment, accommodations, charter boats and other needs. I understand that in Florida alone, salt water fishing has an economic value equal to that of the citrus and cattle industries combined. And Dr. Lionel A. Walford, the distinguished scientist who directs the Sandy Hook Laboratory, estimates that there will be 15 million anglers by 1980.

Yet our knowledge of our game fish, the one resource upon which this economic and recreational asset is based, is pitifully small. We do not know, for example, the complete life history of a single marine game fish. We know all too well the results of such ignorance or lack of proper conservation measures on and over our land. The passenger pigeon is extinct and we are waging a last-ditch battle to preserve the whooping crane. Unfortunately, this same conservation crisis is developing for the game fish resources of the ocean. On the Atlantic coast the yellowtail flounder, which used to abound off southern New England, is almost gone from the area.

The work at Sandy Hook and its subsidiary facility at Tiburon, Calif., is our sole research effort to probe the vast chasm that is our ignorance of everything about marine game fish.

This fledgling program has been stunted from the start by the lack of adequate funds. Yet despite having to do without, devise makeshift equipment, borrow the use of a vessel and the assistance of volunteers, the dedication, economies and ingenuity of Dr. Walford and his outstanding staff have already accomplished valuable work. A study of sharks along the Jersey coast was of immediate practical value to the commercial menhaden fishing industry. Now underway at

Sandy Hook is the most fundamental of all research in this area—a study of phytoplankton, the food of the sea upon which all marine life ultimately depends for existence—yet much more needs to be done.

Mr. Chairman, the budget request for the Sandy Hook Laboratory in fiscal year 1965 includes only $168,000; just enough to continue operating at last year's level. Additional funds are urgently needed: $300,000 for operation of Sandy Hook's new vessel; $50,000 for operation of a new sea-water tank; and $30,000 to plan a census of the game fish catch and marine anglers. I will comment only briefly on these items since I know the statement by Mr. Richard C. Wolff which I am privileged to submit to you will present detailed and expert information on them.

Last year, your committee approved an additional $80,000 for Sandy Hook which made possible the acquisition of a Government surplus vessel that is now equipped and ready for use. Unless an additional $300,000 is provided, however, our $80,000 investment will remain tied at its wharf. With that amount, this new floating laboratory could operate year round—the most economical and effective way to study the 5,000 miles of our coastline.

With your committee's approval of $52,000 last year, a unique sea-water tank was constructed for the closeup study of game fish. This, too, will be a lost investment if $50,000 is not provided for it to function.

The proposed feasibility study and field test for a census of game fishermen and their catch is basic for all Sandy Hook's research, but it cannot be undertaken unless $30,000 is made available.

In my judgment, approval of these additional sums is essential not only to permit proper conduct of this important research but also to justify our past investment in it. I would like to emphasize that we certainly get our money's worth. As one anglers' club stated, in urging approval of these funds, "They do not look at a dollar twice before they spend it—they look at it three times. The dollars they see are hard to come by." And in this program our investment is multiplied because of the assistance rendered by the remarkable group of volunteer skindivers from the American Littoral Society who freely give their time and effort to help in much of Sandy Hook's research. In addition, fishing clubs and industry have already indicated great interest and willingness to help in any way possible in the proposed census.

Mr. Chairman, I strongly urge the committee's approval of these additional funds. It would be a profitable and prudent investment; to deny these essential appropriations would be false economy.

I would appreciate greatly if the attached statement by Mr. Richard C. Wolff could be included in the hearing record. In addition, I am enclosing an excellent article on Sandy Hook from the March 9, 1964, issue of Sports Illustrated for inclusion in the record if you deem it appropriate.

With best personal regards.

Sincerely,

HARRISON A. WILLIAMS, Jr.

(Statement by Richard C. Wolff referred to in Senator Williams' letter follows:)

STATEMENT OF RICHARD C. WOLFF ON FEDERAL MARINE RESEARCH APPROPRIATIONS, U.S. BUREAU OF SPORTS FISHERIES AND WILDLIFE, SUBMITTED MARCH 10, 1964, TO SENATE APPROPRIATIONS COMMITTEE, ROOM 1235, NEW SENATE OFFICE BUILDING, WASHINGTON, D.C.

Mr. Chairman, this statement is directed at the totally inadequate budget request for $262,000 in fiscal year 1965 to operate the entire Federal marine research program which is headquartered at Sandy Hook, N.J., on the Atlantic coast, with a second laboratory at Tiburon, Calif.

It is offered on behalf of the National Association of Marine Anglers, which I head, and reflects the concern of many of my colleagues in the 1,200-member Outdoor Writers Association of America and of several companies in the sports fishing field including the Garcia Corp., a leading tackle manufacturer, of which I am vice president.

The administration's request, less than 10 percent of the amount Congress provided might be appropriated annually for this vital program, is inadequate, unrealistic, and verges on the irrational.

Last year, many Members of Congress were properly alarmed by reports from many coastal communities of the unexplained disappearance of important species of gamefish, highly prized by the more than 7 million salt water anglers in the United States who invest an average of $100 each year in pursuit of this sport.

As a result, this committee recommended some $80,000 in additional funds so that a surplus vessel could be redesigned and outfitted for a 5,000-mile coastline survey of salt water gamefish extending out as far as the Continental Shelf.

Under the direction of Dr. Lionel Walford, head of the Federal Marine Lab, at Sandy Hook, such a vessel has been acquired and is now being outfitted. However, not a cent for the operation of this unique project is provided in the budget request before you now. Unless Congress acts, on July 1, 1964, the start of the next fiscal year, this vessel will be securely anchored inshore—deserted as a ghost ship.

Marine authorities advise us that for the most efficient and economical operation, it should be run year round at a minimum cost of $300,000 for fiscal year 1965. That amount would launch the ship at the first national study of game fish abundance, breeding, and migration habits, on a county-by-county basis with special attention to fish depletion problems already threatening local econo-, mies in 21 coastal States. These states are: Alabama, California, Connecticut, Delaware, Florida, Georgia, Louisiana, Maine, Maryland, Massachusetts, Mississippi, New Hampshire, New Jersey, New York, North Carolina, Oregon Rhode Island, South Carolina, Texas, Virginia, and Washington.

The second glaring budgetary omission concerns the world's first salt water undersea laboratory constructed at Sandy Hook, N.J. Here, in a specially equipped tank, important gamefish species may be studied close up through glass walls to determine the kind of marine environment resulting in abundant sports fishing. Even though Congress appropriated $52,000 in construction funds last year to build this unique facility, there is not one penny included in the budget before the committee to run it. An additional $50,000 is needed for this operation in the new fiscal year. Otherwise, Sandy Hook will wind up with the largest, emptiest indoor salt water pool in the world.

The third appropriations need of vital importance now is for $30,000 to conduct a feasibility study and field test preparatory to the first national census of the number of salt water game fish caught by recreational anglers every year. Marine researchers believe salt water fishermen are increasing at the rate of 400,000 a year. Already, their total catch of fin food fish exceeds the harvest taken by the entire U.S. commercial fishing industry. But an increasing number are fishing in troubled waters. Ed Buckow, outdoor editor of the Palm Beach Post Times, reports a 5-year downward trend in the business done in boat and tackle shops, harming the economy of the entire Palm Beach area. It is traced directly to the depletion of major game fish species in local waters. Higher up on the Atlantic coast, the fluke is vanishing and John Suydam, head of the National Party Boat Owners Association reports business has nosedived by 50 percent, endangering many jobs unless other game fish can be found to replace it.

To improve and expand our salt water sport fishing facilities and to formulate effective programs for marine game fish conservation—the key objectives of this Federal program—a national census of game fish and marine anglers is indispensable. Once a feasible plan is prepared, I will do everything in my power to enlist the wholehearted cooperation of the fishing clubs and private companies active in this field.

For a detailed report of the major miracles of marine research already performed by dedicated professionals and their volunteers, I respectfully call the committee's attention to a feature article titled, "A New Look Into the Sea," by Robert H. Boyle in the national magazine, Sports Illustrated, March 9, 1964. It describes the amazing work underway at Sandy Hook despite the meager budget.

Many Americans concerned with the future of salt water angling believe the opportunity it affords millions for healthful, outdoor recreation may well be its major contribution to the Nation's welfare. But how does one measure accurately such all-important yet intangible benefits? Fortunately, recreational fishing does have an enormous impact on our economy and the yardstick most commonly used involves a comparison between sport and commercial fishing.

Official Government figures show that the total value of the commercial salt water catch in the United States is in the neighborhood of $350 million annually. In sharp contrast, salt water fishing for sport involves an annual expenditure of more than $700 million annually, and it is increasing at the rate of $40 million a year. This sum covers the cost of transportation to coastal areas, food and lodging while there, plus motors, fishing equipment, boats and other chartering facilities. In dollars and cents, sports fishing has double the economic impact of commercial angling in salt water alone. Federal support for these groups does not, unfortunately, reflect that fact. Just the opposite is true.

By July of this year, Federal expenditures for research and development benefiting the Nation's 129,000 commercial fishermen are expected to average

$240 per fisherman. But, add up the budget request already proposed for the entire Federal marine research program plus the additional funds I have suggested on the basis of urgent need, and the overall expenditure averages out to less than 9 cents for every recreational salt water angler in the Nation. It is an investment we will never regret.

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LETTER FROM STEERING COMMITTEE OF NEW YORK CONGRESSIONAL DELEGATION REGARDING AN ADDITIONAL APPROPRIATION TO CONSTRUCTION BUDGET OF BUREAU OF SPORT FISHERIES AND WILDLIFE FOR RENOVATING FEDERAL FISH HATCHERY AT CORTLAND, N.Y.

MARCH 3, 1964.

Hon. CARL HAYDEN,
*Chairman, Subcommittee on Department of Interior and Related Agencies, Senate Appropriations Committee, Old Senate Office Building, Washington, D.C.*

DEAR MR. CHAIRMAN: It has been brought to this committee's attention that the Federal Fish Hatchery at Cortland, N.Y., conducting outstanding research on nutrition requirements of fish in this country and serving as a training station for Federal and State fish hatchery personnel coming from all parts of the Nation, is housed in antiquated frame buildings. Other supporting facilities at the station are, according to information submitted to us, completely inadequate and obsolete for the important job being done there. Engineering planning for new and enlarged buildings has been undertaken with cost estimates totaling $975,000.

It is understood the Director of the Bureau of Sport Fisheries and Wildlife, U.S. Fish and Wildlife Service, several years ago requested this fund. Because of the seemingly important nature of this research, with its resultant finding to the benefit of the country as a whole, it is urged that your committee now consider inclusion of this item in the fiscal year 1965 appropriation measure.

Your every consideration to this request will be greatly appreciated.

Yours very truly,

Representative EMANUEL CELLER, *Chairman.*
Senator JACOB K. JAVITS.
Representative JAMES J. DELANEY.
Representative WILLIAM E. MILLER.
Representative LEO W. O'BRIEN.
Representative STEVEN B. DEROUNIAN.

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STATEMENT BY PHILIP A. DOUGLAS, EXECUTIVE SECRETARY, SPORT FISHING INSTITUTE, CONCERNING APPROPRIATIONS FOR BUREAU OF SPORT FISHERIES AND WILDLIFE AND BUREAU OF OUTDOOR RECREATION

Mr. Chairman and members of the committee, my name is Philip A. Douglas. I am executive secretary of the Sport Fishing Institute, located in Washington, D.C. The objective of the Sport Fishing Institute is a simple one. It is to improve sport fishing to the fullest extent possible through encouraging the rapid development and application of sound fish conservation practices; in short, "to help shorten the time between bites." We are a nonprofit organization, deriving our operating funds from a wide representation of sport fishing equipment manufacturers, related industries, and concerned individuals.

The Sport Fishing Institute appreciates the opportunity to appear before your committee. At the outset, I should like to associate myself and Sport Fishing Institute with the testimony of my colleagues in conservation representing their various national organizations here today. We support their recommendations for additional funds to strengthen the several aspects of the Federal programs to which they have addressed themselves.

In the interest of time, I will confine my specific comment to the proposed budget items representing the fishery programs which are the responsibility of the Bureau of Sport Fisheries and Wildlife and to the operating budget of the Bureau of Outdoor Recreation. Too, these are the areas of special concern and professional competence that Sport Fishing Institute represents in conservation matters.

RESERVOIR AND SALTWATER SPORT FISHERIES

Sport fishing in lakes, reservoirs, streams, along the coasts and in the oceans is recognized today as one of the leading participant forms of outdoor recreation.

It's been proven to be a highly healthful sport, both for mind and body. The hypertensions of today's existence require that we pursue occasionally "a dignified way of doing nothing." Fifty-seven million people fished for sport at least once this past year, with some 32,600,000 habitual anglers accounted for among them.

Where all the people fished is detailed in ORRRC's Study Report No. 7 entitled "Sport Fishing—Today and Tomorrow." Estimates indicated that 31 percent went to manmade lakes and 17 percent to the oceans' shores, bays, and open waters. Within about a dozen years, not very far off, numbers of anglers are expected to double. Trends show that by 1976, reservoir fishing will encompass 44 percent of the fishing and marine waters, 22 percent of the total of such activity. Two-thirds of all angling, therefore, will be done in reservoirs or marine waters by 1976. This pretty well points up the needed priority in programing to further the fresh and salt water sport fisheries of this Nation.

A huge national problem confronts us when we attempt to figure out where and how we'll be able to support this tremendous pressure. The devastation by pollution of many of our estuarine "nursery grounds" for saltwater forage and game fish, the decline of sport fishing in many (not all) older reservoirs—is it because of the poor quality of inflowing waters, the depletion or unavailability of nutrients, intraspecific and interspecific competition, water level fluctuations, turbidity, temperature regimen, or oxygen levels, etc., etc.? Look at how ignorant we really are.

We estimate that Americans invested about $3 billion in goods and services required for recreational fishing purposes in 1963; this is a considerable factor in the Nation's economy. Even more important, fishing probably provided some 575 million man-days of outdoor recreation—vitally needed therapy in today's nerve-jangling world. The Izaak Walton League of America discovered that pollution of angling waters probably prevented an estimated 325 million daily fishing trips in 1960, a loss of about $682 million to the sport fishing industry and the Nation's economy that year. We're dealing in significant terms and our planning programs should reflect this fact. They don't.

Our basic knowledge of how best and most efficiently to manage one of our most important renewable natural resources is extremely limited. We just don't know answers to many of the very basic questions confronting us daily. Basic, as distinct from applied, research is the only way we'll ever be able to gain such knowledge. Yet, to look at some of the budgets established to find solutions to many of these perplexing problems is one of the most discouraging facts we must face today.

The Federal Government, acting through the Bureau of Sport Fisheries and Wildlife, should undertake the necessarily long-term basic research that must precede and provide the missing base for the applied fishery research programs which the States can and do handle. Many of the principal multiple-use impoundments in the United States today, and most certainly our coastal waters, are interstate to one degree or another, and are therefore a Federal responsibility. Many of our inland reservoirs are generally financed and built by the U.S. Army Corps of Engineers or the Bureau of Reclamation. Our estuaries, bays, and coasts, also under Federal cognizance, are being polluted and otherwise greatly damaged largely because of antiquated and inadequate practices. I submit that long-term basic research on the natural resources in these waters is a primary responsibility of the Federal department or departments involved.

The Federal program for reservoir and marine game fish research falls far short of the minimal needs. Current budgetary allocations are a mere $330,000 and $262,000, respectively. In fiscal year 1963–64, these figures were $326,000 and $257,000, but the apparent slight increases for the actual programs constitute practical decreases due to anticipated salary increases in 1965. Sport Fishing Institute has persistently requested the Congress to augment these paltry figures to bring the annual allocations to at least a minimum working figure of $600,000 for reservoir research and $850,000 for marine game fish research. There is no question of authority to be active in this work because the Department of the Interior has such authority under the Fish and Wildlife Act of 1956, as amended (16 U.S.C., 742a et seq.), to conduct a fishery research program on reservoirs and in marine waters. The latter authority specifically emphasized, further, in the Marine Game Fish Research Act of 1959 (Public Law 86–359).

Now, a bare beginning has been made through establishment of two small reservoir research units: one to study productivity and fish populations in the mainstem upper Missouri River reservoirs of North and South Dakota, and one in the White River Reservoir complex of Arkansas and Missouri. The personnel, though limited in number, are competent and enjoy the most able direction.

For marine fish biology, too, a very meager start is evidenced through establishment of two coastal marine laboratories at Sandy Hook, N.J., and Tiburon, Calif. A third laboratory is needed on the Gulf of Mexico, and we urge that such a laboratory be authorized on the superbly strategic Dauphin Island, Ala., with an appropriation for purposes of immediate planning in the sum of $50,000. This research program should eventually be raised to a level consistent with the stature and posture, it must assume as a leader, and these collective facilities would provide the needed skeleton. The modest increases Sport Fishing Institute is recommending would constitute a significant step and would yield enormous public benefits.

There are 12 cooperative fishery research units now established at major State universities throughout the United States. The $30,000 operating budgets for each of these is woefully inadequate; $40,000 is a more realistic figure. Too, there is merit in expanding this research effort. SFI urges the $10,000 operating fund increase to each of the established units to a $40,000 figure and a study of the training facilities and field study needs at additional feasible locations. It is recognized by many of you, I am sure, that this is a bare outline of a most vital and substantial subject that must be pursued with increased vigor to obtain the end results—more and better sport fishing for some 100 million anglers by 1976.

### NATIONAL FISHERIES CENTER AND AQUARIUM

The recently authorized National Fisheries Center and Aquarium requires funds for completion of planning in fiscal year 1965. The sum of $500,000 has been requested by the Department in the budget—enough to complete all plans and specifications. We heartily concur in this request in the normal sequence of events leading to the logical implementation of Public Law 87–758. We especially applaud the self-liquidating feature of this excellent addition to the Nation's Capital and culture.

### BUREAU OF OUTDOOR RECREATION

Among other things, the Outdoor Recreation Resources Review Commission recommended to the President that a Bureau of Outdoor Recreation be created, charged with the "overall responsibility for leadership of a nationwide effort by coordinating the various Federal programs and assisting other levels of government to meet the demands for outdoor recreation." Sport Fishing Institute applauded Interior Secretary Udall's implementing executive action creating such a Bureau on April 2, 1962. The institute strongly concurs in the proposed 1965 operating budget of $2,700,000 being requested for this agency by the Department of the Interior for purposes of its important assignments. A breakdown of this budget estimate shows that $1,600,000 is for planning and cooperative services which will be used in (1) the preparation of nationwide outdoor recreation plans including activities of the Federal, State and local governments as well as private interests, (2) assistance to the States in development of statewide plans, and (3) studies of significantly potential recreation areas; $1,100,000 is for coordination, education, and research to be used in (1) budgetary, legislative, and program review of over 20 Federal agencies as they relate to outdoor recreation, (2) for coordination of recreation aspects of major river basin studies, (3) for education and interpretation to encourage outdoor recreation careers in colleges and universities and to clear technical literature, and (4) research in support of the nationwide planning effort and the comprehensive Federal coordination program.

Contract studies are also being planned to measure demand for outdoor recreation. A sophisticated approach to this important research work is urgently needed.

We find that BOR in its first year of operation under Public Law 88–29 has proven itself through initiation of limited operations of six regional offices, cooperation with Federal, State and local outdoor recreation agencies, and staff service for the President's Recreation Advisory Council. BOR's annual report plots the course of future action in these words: "We must recognize and face the situation confronting us with the historical knowledge that unless prompt, courageous action is taken to assure adequate outdoor recreation resources, succeeding generations will suffer the loss of much of a priceless national heritage."

In conclusion, Sport Fishing Institute respectfully urges that you take action to increase the much needed money for both reservoir and salt water game fish research, approve the stipulated budget for planning funds for the National Fisheries Center and Aquarium, and provide adequate operating capital for the new Bureau of Outdoor Recreation as requested for this agency.

Mr. Chairman, we appreciate the opportunity to appear before your committee, and respectfully request that this testimony be included in the written record of these hearings. Thank you.

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STATEMENT BY C. R. GUTERMUTH, VICE PRESIDENT, WILDLIFE MANAGEMENT INSTITUTE, REGARDING BUDGET ITEMS FOR BUREAU OF SPORT FISHERIES AND WILDLIFE, NATIONAL PARK SERVICE, AND BUREAU OF OUTDOOR RECREATION

Mr. Chairman, I am C. R. Gutermuth, vice president of the Wildlife Management Institute. The institute is one of the older national conservation organizations, and its program has been dedicated to the restoration and improved management of natural resources in the public interest for more than 50 years.

In order to conserve the committee's time, Mr. Chairman, I will comment on a limited number of budget items for the Bureau of Sport Fisheries and Wildlife, the Bureau of Outdoor Recreation, and the National Park Service.

BUREAU OF SPORT FISHERIES AND WILDLIFE

Conservationists are disappointed that only $8 million is being requested in the migratory bird conservation account for the purchase of wet lands and other habitat essential to waterfowl under the authorization of Public Law 87–383. This is a decrease of $2 million from the current fiscal year.

These funds are needed to implement the emergency program of wetlands preservation authorized by Public Law 87–383. That act authorizes the appropriation of $105 million over a 7-year period, with the appropriations repaid at the rate of 75 percent of the annual revenues from the sale of duck stamps commencing with fiscal year 1969. The program also is augmented by approximately $4 million received annually from sportsmen who purchase duck stamps.

Wet lands cannot be purchased and preserved with inadequate funds. The appropriations granted thus far to implement Public Law 87–383 have fallen below program expectations. Conservationists urge the Congress to provide at least $10 million for this vital program in the next fiscal year.

The wildlife research item under "Management and investigations of resources" falls far short of the amount actually needed to support the dove research and management program that was developed cooperatively by the Bureau, the individual State fish and game departments, and the International Association of Game, Fish, & Conservation Commissioners. The cooperative aspects of that widely supported program would be undertaken by both the State and Federal wildlife agencies.

It is believed that an enlarged mourning dove research and management program is necessary. More doves are taken by shooters than any other game bird, but little is known about their basic biology, habits, and requirements. Doves have a tremendous reproductive potential, and they appear to suffer less as a result of expanded urbanization than other species of wildlife. They are immensely popular with hunters, and they are sure to be an even more important migratory game bird in the future. State and Federal wildlife experts agree that the required information about doves can be obtained most efficiently through the cooperative program they have developed. It is hoped that the committee can increase the wildlife research item up to the $256,000 that the State and Federal agencies believe is necessary for this essential work.

During the past few weeks the institute has received a number of queries from Members of Congress regarding the southeastern cooperative disease studies currently being financed by 13 States through the University of Georgia. This subject may already have been discussed by the committee. The fish and game departments of the 13 Southeastern States are investing about $50,000 annually in the program in order to retain the competent diagnostic and field services of the School of Veterinary Medicine, University of Georgia, on a standby basis. The program already has produced some beneficial results, particularly in isolating and identifying a white-tailed deer disease organism.

The institute supports the view that the Federal Government could continue to benefit by investing at least $200,000 in this program annually. The money is included in the "Wildlife research" item for the Bureau of Sport Fisheries and Wildlife. That agency has a contract agreement with the University of Georgia for the actual research work.

Several problems now emerging in the Southeast warrant preventive diseas research such as that counducted by the southeastern cooperative disease studies.

Some of these involve such things as cattle tick fever, a blood disease in livestock, and other mammal and bird diseases for which domestic livestock and wildlife may be reservoirs of infection. Preliminary research now could prevent abrupt and emergency programs later, and the knowledge that is developed will provide continuing benefit to both the livestock industry and sportsmen.

We were unable to find a specific item in the budget for the new National Fisheries Center and Aquarium, but it is understood that $500,000 is being asked for the preparation of plans and specifications. It is hoped that much needed appropriation will be allowed. The Fisheries Center and Aquarium will contribute much to the advancement of fisheries science and to the understanding of the requirements of our valuable aquatic resources.

It also is hoped that the committee will approve the additional funds that are being requested for research into the effects of pesticides and other of the economic poisons on fish and wildlife resources. There is much to learn about the impact of the increasing use of such toxic materials.

### NATIONAL PARK SERVICE

Conservationists urge the committee to allow the $150,000 increase that is requested in order to conduct the study that was recommended in the Leopold report. It is time that some management and use goals are established for our national parks and monuments.

### BUREAU OF OUTDOOR RECREATION

It is hoped that the committee will grant the $800,000 increase that has been requested for the Bureau of Outdoor Recreation. This modest increase is essential to the orderly expansion of that new agency's program.

The additional funds will enable the Bureau ot proceed with the preparation of a nationwide outdoor recreation plan and to assist the States in developing similar plans as a part of that undertaking. Some of the requested increase will be used by the Bureau in seeking to coordinate outdoor recreation activities of various Federal agencies and in conducting research and study programs that will provide information necessary to the successful completion of the nationwide plan for outdoor recreation.

All of these activities are pointed toward the fulfillment of the charge laid down to the Bureau when it was created in 1962. They will better prepare that agency to handle the additional duties that apparently will be vested in it under the terms of the land and water conservation fund proposal currently before the Congress.

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## STATEMENT BY LOUIS S. CLAPPER, NATIONAL WILDLIFE FEDERATION, REGARDING BUDGET ITEMS FOR DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES

I am Louis S. Clapper, chief of the Division of Conservation Education, National Wildlife Federation, which has its headquarters here in Washington, D.C.

The National Wildlife Federation is a private organization which utilizes educational means to further conservation objectives in the public interest. Independent affiliates of the National Wildlife Federation are located in all States. These affiliates, in turn, are composed of individuals who, when combined with associate members and other supporters of the National Wildlife Federation, number an estimated 2 million persons.

We appreciate the invitation and opportunity to make these recommendations relative to appropriations proposed for the Department of the Interior and related agencies. We shall touch only upon the more important aspects, as we view them, in the budget.

We are hopeful that the committee can allow the full $8 million requested in advance funds for the emergency waterfowl wetlands acquisition program. Even though the acquisition program is being held up in the production areas of North Dakota and South Dakota, we believe that $8 million can be used wisely. As members of the committee know, the Senate Committee on Commerce has been conducting hearings on revenue-sharing bills which, if enacted, probably will result in the removal of objections to Federal acquisition in the Dakotas. If the Congress approves of this program, we would be hopeful that supplemental funds might be advanced. Even with $8 million allowed for fiscal 1965, this would mean that only $25 million of the $105 million authorized in 1961 would have been used through 4 years of the 7-year program.

The waterfowl wetlands acquisition program is self-liquidating. This same fact is true for the National Fisheries Center and Aquarium. As indicated in previous testimony, we believe this project should go ahead and that the committee should allow $500,000 for plans and specifications.

Conservationists long have been concerned about the effects of pesticide chemicals on fish and wildlife, as has been pointed out by the President's Science Advisory Committee. We recommend that the full authorization for pesticide research be granted and that the amounts requested for pesticide laboratories at Columbia, Mo., and Denver, Colo., will be allowed.

Other areas of research are important. We are particularly hopeful that as much as $165,000 in additional funds can be allocated for research on the mourning dove. This bird is of significant importance as a game species and is highly regarded by many other bird lovers. Much more needs to be known about it. Because of the bird's migratory nature, it is a true responsibility of the Federal Government and we are hopeful that more funds can be allowed for research. We are told that $165,000 would permit the employment of five field biolgoists and allow contracts to be signed with universities for suitable research.

Fishing continues to grow in importance as a public recreation. Large reservoirs being constructed in all parts of the country and offshore marine areas offer tremendous recreational potentials. Much more needs to be learned, however, about the management of these resources. We would hope that the reservoir fisheries research program can be raised to a total of $600,000 and the marine fisheries research program can be allocated as much as $800,000. The operating funds proposed for 1965—$330,000 for reservoir research and $260,000 for marine research—are about the same as allowed in the 2 previous years.

The Bureau of Sport Fisheries and Wildlife has an unusually good opportunity to secure a marine game fish research center location at a modest cost. According to our information, authorities in Mobile, Ala., have agreed to give an appropriate site on Dauphin Island in Mobile Bay to the Bureau for this laboratory. This site, probably valued at $200,000, has facilities such as water and sewage lines and is cited as the finest for the purpose on the eastern gulf coast. Nearby are Federal and State shellfisheries laboratories. As members of the subcommittee know, marine game fisheries laboratories at Sandy Hook, N.J., and Tiburon, Calif., are in operation and detailed planning is underway for the Narragansett installation in Rhode Island. However, no stations have been provided for along the gulf. An allocation of $50,000 is needed for development of the site. Planning and designing requires another $100,000.

We believe that the increase proposed for "Administration of wildlife refuges" is justified in view of the need to manage new areas and to handle new public recreational responsibilities approved by the Congress.

Mr. Chairman, our organization long has supported the concept of providing outdoor recreational facilities for the public. We believe the new Bureau of Outdoor Recreation is proving its full value. The proposed appropriation of $2.7 million in developing a nationwide plan for outdoor recreation appears reasonable. In coordinating Federal programs, and in assisting the States, this agency probably can save in avoiding duplication more than its cost. We are hopeful that the land and water conservation fund soon will be approved by the Congress. Allocations of money from this source for important acquisitions then should proceed with a minimum of delay.

The National Wildlife Federation is encouraged that a modest increase is proposed in operating expenditures for the Bureau of Land Management. We are particularly hopeful that the committee can allow $1 million for the construction of sanitation and protection facilities where public recreational use is heavy.

We believe the National Park Service should be granted $150,000 for natural science and wildlife management studies as part of a modest increase in the item for "Management and protection."

In conclusion, Mr. Chairman, we must express disappointment that the development program for the national forests is lagging in funds for several functions. The proposed increase for recreation-public use still leaves this phase behind the planned program. The only increases for wildlife habitat management and forest fire protection are for pay increases even though these projects also are behind the planned program. Wildlife habitat research should be accelerated beyond the present level.

Thank you for the opportunity of making these remarks.

LETTER FROM ALEX RADIN, AMERICAN PUBLIC POWER ASSOCIATION, CONCERNING FUNDS FOR BUREAU OF COMMERCIAL FISHERIES AND OFFICE OF SALINE WATER

MARCH 9, 1964.

Senator CARL HAYDEN,
*Chairman, Committee on Appropriations,*
*U.S. Senate, Washington, D.C.*

DEAR SENATOR HAYDEN: In connection with the hearings which the Subcommittee on Department of the Interior and Related Agencies currently is holding on fiscal 1965 appropriations, our association would like to go on record in support of two budget items which affect electric power development.

We urge approval of the full $1,407,000 appropriation asked by the Bureau of Commercial Fisheries for continued research on fish migration over dams pointing out that this is below the 1964 estimate of $1,497,000 and substantially less than the $1,667,000 appropriated for this research in fiscal 1963.

Members of APPA feel that this program is of critical importance to future full development of our hydroelectric resources and regret that it appears to be diminishing rather than expanding. In absence of a large budget request, however, we would support the appropriation asked by the President.

With respect to the Office of Saline Water, APPA respectfully urges approval of the full $10,650,000 asked in the President's budget. Recent studies indicate that combination power and saline water plants may be economically feasible in certain areas of the country, and we would hope that research and development efforts along this line will be stepped up. The $9,650,000 asked for research and development activities in fiscal 1965 represents a modest increase over the $8,865,000 estimated in 1964 and we fully support this increase.

It would be appreciated if you could make this letter part of the printed hearing record.

Sincerely,

ALEX RADIN, *General Manager.*

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LETTER FROM SENATORS WARREN G. MAGNUSON AND HENRY M. JACKSON URGING ADDITIONAL FUNDS FOR FOREST HYDROLOGY LABORATORY AT WENATCHEE, WASH.

MARCH 10, 1964.

Hon. CARL HAYDEN,
*Chairman, Subcommittee on Department of the Interior and Related Agencies,*
*Senate Committee on Appropriations, Washington, D.C.*

MY DEAR MR. CHAIRMAN: We are writing to commend to your attention and that of your subcommittee the need for strengthening research at the new Forest Hydrology Laboratory in Wenatchee, Wash.

We understand that the Forest Service fiscal year 1965 budget includes $90,000 for operations at this Laboratory. Full utilization of these new facilities would require an additional appropriation of $130,000 during fiscal year 1965.

Such an increase would result in the yield of much useful information concerning the mountain watersheds of the east side of the Cascade Mountains. This information is immediately pertinent to such land-use matters as timber harvesting, grazing, and recreational development. Material from the U.S. Forest Service to this effect is attached.

We should like to point out that this Laboratory is located in a labor surplus area contiguous to other distressed areas. The generation of such land-use information would have a very significant bearing on the employment problem of these areas.

We earnestly solicit your subcommittee's careful and sympathetic consideration of our request.

Yours faithfully,

WARREN G. MAGNUSON,
HENRY M. JACKSON,
*U.S. Senators.*

(Material from the U.S. Forest Service referred to by Senators Magnuson and Jackson follows:)

MOUNTAIN WATERSHEDS EAST OF THE CASCADES

FEBRUARY 28, 1964.

Hon. HENRY M. JACKSON,
*U.S. Senate,*
*Washington, D.C.*

DEAR SENATOR JACKSON: We appreciate your bringing Mr Kirby's letter of February 13 to our attention wi h your letter of February 20.

Strengthening the research at the new Forest Hydrology Laboratory at Wenatchee would result in much usable information becoming available concerning the mountain watersheds of the east side of the Cascades. This information would have an important bearing upon timber harvesting, grazing and other uses of the land, including the ski resort development mentioned by Mr. Kirby. For example, studies of mountain soils will determine what characteristics control the relative stability of the various soils and how these soils are affected by different types and degrees of disturbance. The ski resort development will entail soil disturbance through clearing of vegetation for ski runs, and construction of trails and roads. Some soils can withstand considerable disturbance without a great increase in storm runoff and erosion resulting, while others are quite sensitive to disturbance. The research will develop guides for recognizing problem soils and what special measures are needed to protect them.

The research will also develop information about snow accumulation and melt, how these are affected by different patterns of timber harvesting. The geometry of land surface configuration and timber distribution can have a considerable effect upon the snow blanket. This knowledge is basic to management of snow cover, whether for winter sports or for water yield purposes.

The new Laboratory will provide the necessary facilities to support an in-
research creased program of approximately $130,000 above the present level. The Forest Service plans to strengthen the research program at Wenatchee to this extent as soon as the budget situation will permit.

We hope this information supplies your need. If we can be of further assistance please call upon us. We appreciate your continuing interest in our research program. Mr. Kirby's letter is returned herewith.

Sincerely yours,

EDWARD P. CLIFF, *Chief.*
By CLARE HENDEE.

WATERSHED MANAGEMENT RESEARCH, WENATCHEE, WASH.

In the relatively dry mid-Columbia River system, water coming from the high-elevation alpine areas, the upper slope forests and the ponderosa pine grasslands is very important. This river system provides water for irrigation and hydroelectric power, for industrial and domestic use, and for a rapidly growing demand for recreation. Along the top of the Cascade Mountains in the State of Washington there is as much as 100 inches of rain and snow, but this decreases very fast as we come down the eastern slope, to less than 6 inches in some places. Precipitation occurs mainly in winter and early spring but heavy summer thunderstorms sometimes cause local flooding and erosion. The soils in eastern Washington and Oregon are highly erosible so that water quality is constantly endangered. Summer streamflow is generally very low and water is often in short supply.

In this area east of the crest of the Cascade Mountains, more than three-fourths of the usable water comes from about 30 percent of the land, the alpine and high-elevation forests and grasslands. Approximately 2.5 billion board feet of timber are harvested annually from this water-producing area, and these lands are also used for grazing and recreation. This use of these mountain lands for several purposes presents some problems of soil stability and water quality but they also present considerable opportunity for increasing the yield of water for downstream use, if the right management practices can be developed. This is the job to be done by the watershed management research people in the Forest Service.

The first phase of a modern forest soil and watershed research laboratory has recently been completed at Wenatchee, Wash., the headquarters for Forest Service research east of the Cascades. The present staff of scientists are high-

caliber men, but there just are not enough of them to do the job needing to be done and to fully utilize the laboratory facilities now available to them. They are currently studying the physical and chemical properties of soils derived from different geologic materials to determine their erodibility and to develop guides to better management. Radioisotopes are being used to study soil erosion on steep mountain slopes. The use of water by different trees and plants is being studied along with a whole complex of soil-plant-water relations that bear on water available for streamflow and ground water. This is a basic type of research which can be applied to management problems throughout the Northwest, or even further. In these days of impending local water shortages, this research is important. An increase of $130,000 is needed for strengthening the watershed management research at Wenatchee, Wash., and to bring staffing of the new laboratory up to the planned level.

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LETTER FROM SENATOR FRANK CHURCH URGING ACQUISITION OF FOREST LANDS IN IDAHO

MARCH 13, 1964.

Hon. CARL HAYDEN,
*Chairman, Committee on Appropriations,*
*U.S. Senate,*
*Washington, D.C.*

DEAR CARL: I have been asked to help preserve from commercial development one of the most beautiful places in the State of Idaho. A small lake, the Upper Priest Lake, is connected by a narrow body of water to Priest Lake. It is surrounded by federally or State-owned land with one exception; 3 miles of shoreline is privately owned. The owners have announced that their land will be sold for private development on May 15 unless they can have reasonable assurance by that date that it will be purchased for public ownership.

The Area Redevelopment Administration, the U.S. Forest Service, and various interested Idaho agencies have recommended that this lake be preserved in its natural state. The Forest Service advises that the land can be purchased under the Weeks law of March 1, 1911, and added to the Kaniksu National Forest without the necessity of special legislation. An appropriation is, however, required in the amount of $400,000, and there has not been time for the Forest Service to initiate and properly clear a request that this item be added to the President's budget for fiscal year 1965.

I am writing to request that your committee's hearing record include a letter from the Forest Service on this subject, dated March 10, and this letter. If it is possible for the committee to consider insertion of the $400,000 required for purchase of the land at its markup session, I will be most grateful. If this cannot be done, I will want to discuss with you further the possibility of amending the appropriations bill on the Senate floor to accomplish the needed land acquisition.

Sincerely,

FRANK CHURCH.

(Letter from Forest Service referred to in Senator Church's letter follows:)

REPORT OF REGIONAL FORESTER

MARCH 10, 1964.

Hon. FRANK CHURCH,
*U.S. Senate.*

DEAR SENATOR CHURCH: On December 24, 1963, we promised to write you further in reply to your letter of December 10, 1963, concerning Upper Priest Lake. Mr. Art Manley, vice president of the Idaho Wildlife Federation, urges that this lake be preserved in its present primitive condition and suggests special legislation to authorize Forest Service acquisition and administration of certain privately owned lands adjoining the lake. You requested draft legislation, if necessary, to accomplish this purpose and you asked for our comments on such legislation and general landownership problem in the area.

We now have a report from our Regional Forester on this matter. Following are our suggestions.

We concur that it would be desirable to consolidate into public ownership (national forest and Idaho State forest) the land surrounding Upper Priest Lake for the purpose of maintaining the near-natural condition of the lakeshore and adjacent lands. Four privately owned tracts should be acquired to accomplish this purpose.

Purchase of these private lands is considered preferable to exchange. Our field people advise that Bonner County and State officials support Federal acquisition of these properties by purchase.

If the Congress appropriated the necessary funds it would be possible to acquire these lands under existing authority of the Weeks law of March 1, 1911, and to add them to the Kaniksu National Forest for administration without the necessity of special legislation. This presumes that the National Forest Reservation Commission would approve the individual purchase transactions that would be involved and we are confident that such approval would be forthcoming.

Such purchase action is only one step in assuring the continuance of a near-natural area around Upper Priest Lake. To accomplish this the State of Idaho must take special legislative action to classify, dedicate, and restrict its lands adjacent to the lake for near-natural use. As it now stands their lands are in the Priest Lake State Forest, and by law (or perhaps constitutional provision) are managed for the production of revenue for schools. There is no assurance that the State, without such action, will be able to prevent timber cutting or sale of recreation residence sites should pressures for such action build up. Such pressure is now occurring on State lands on the east shore of the main Priest Lake.

It would also be desirable at some future time that the State obtain exchange authority through appropriate State legislation to permit exchanges of lands between the State and the Forest Service around Upper Priest Lake. Such exchanges by consolidating ownership would contribute to greater economy and efficiency in administering both State and Federal lands in the area.

Our field people advise that the owners of the four private tracts have stated that they will sell their properties for $400,000. It is the judgment of our people that this value can be supported by an appraisal of the fair market value of the properties.

If we can be of further service in this matter please advise.

Sincerely yours,

HAMILTON PYLES.
By EDWARD P. CLIFF, *Chief*.

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JOINT STATEMENT BY SENATORS HUBERT H. HUMPHREY AND EUGENE J. MCCARTHY URGING FUNDS FOR FOREST RESEARCH IN THE NORTHERN GREAT LAKES REGION

EXPANDING WOOD PRODUCTS MARKETS

Establishing expanded markets for wood products from the northern forests is a leading economic problem in the northern Lake States. More timber is growing annually than is being cut. This trend will increase unless there is expansion of timber used by existing companies and the establishment of a new wood-based industry. The need for new uses of wood and for new products is obvious if the timber resource is to provide employment.

Throughout the area, the present harvest of timber could be expanded. This is a problem for public and private forest owners alike. For example, statistics for the eight national forests in Lakes States show that in 1961 the total cut could have been almost double that which was harvested—1,284,000 cords versus 679,380 cords.

This lack of markets, which also applies to the products of private owners' lands, prevents the use of a resource which could help to bolster economic opportunities. In addition to the current situation, the lack of markets now will affect the future productivity of many timber stands. Necessary thinnings and stand improvement cuts can be made only when there is a market for sale of the products cut.

The northern Lakes States can ill afford the luxury of underused timber resource. Unemployment averaging 10 percent or more of the labor force is common throughout the area. Currently, 45 of the some 80 northern Lake States counties are listed as depressed labor areas. The need to provide new employment is obvious. Whether or not these areas can gain a larger share of the national prosperity will depend, to a considerable extent, on the more complete utilization of the available timber resource.

Accordingly, to meet this objective, we propose the establishment of a Federal Wood-Products Marketing and Applied Utilization Laboratory in northeastern Minnesota. Such a laboratory would serve not only northern Minnesota, but the entire northern Lakes States area—northern Wisconsin and northern Michigan as well.

Last fall, a similar type laboratory was officially dedicated at Princeton, W. Va. This laboratory, the research facility of the Northeastern Forest Experiment Station, was established by the U.S. Forest Service for the purpose of conducting research to find ways in which local forest resources and forest industries could make a greater contribution to the social and economic welfare of the people of the Appalachian region.

We need a similar-type project and facility in the northern Lake States. Northeastern Minnesota would make an excellent location. The laboratory could serve as a necessary link in the wood products research and developmental chain. Fundamental and basic research in wood products has been carried out for more than 50 years at the U.S. Forest Products Laboratory at Madison, Wis. This laboratory is a national institution for wood utilization research. Here basic research is done in wood products, and the results are of national and international importance.

The proposed Wood-Products Marketing and Applied Utilization Laboratory in northeastern Minnesota would not duplicate any other functions of either the Forest Products Laboratory at Madison or forestry schools in Minnesota, Wisconsin, or Michigan. Rather, it would serve as an operational or developmental research unit—working with the wood processors themselves, helping to isolate specific marketing and utilization problems, bringing new techniques and new processes to the small wood products, and analyzing economic and marketing factors so as to suggest ways to expand the processing of wood products for the entire northern Lake States region.

The need for such assistance is critical to thousands of small wood producers and processors who otherwise would be at a loss for technical assistance and help.

The project envisioned would call for the establishment of a major regional project in northeastern Minnesota, where a staff of wood marketing and utilization technicians would specialize in finding new data on the timber resource, study properties and performances in use of wood products made from northern Lake States tree species, and develop and test new wood products.

Their work would provide up-to-date and current information on timber resources, and their availability by specific location on the location and potential of markets for various forest products, on transportation facilities and ways to transport forest products more economically. The laboratory would also provide information on new processes and new wood products which offer potential for production in northern Minnesota and in the northern Lake States. All of this work would be done in close cooperation with the local wood users, the community officials, State conservation, and business development agencies, Area Redevelopment officials, and others interested in expanding economic opportunities in the northern Lake States area.

If the problem of marketing more timber from the Lake States' forests could be generalized in one sentence, it would be that, "consumers (manufacturers or other users) are reluctant to use northern Lake States timber products because they are uncertain or uninformed of its supply, and product suitability, and that in turn the majority of suppliers are unorganized and inefficient because the sluggish demand has not created economic opportunities that attract well-financed and capable individuals to be manufacturers." There are exceptions, but this situation cited is common throughout the area.

Some of the types of work that should be done are:

(1) Timber resource analysis—more detailed data as to specific location, available size classes, species, and qualities that can be made in the usual forest survey reports.

(2) Analysis of other economic factors influencing production costs—transportation, labor, water availability, credit sources, etc.

(3) Investigation of markets for specific products, i.e., the acceptance of balsam fir starts by manufacturers and contractors in northeastern Minnesota and the Twin Cities. For example, a project could look into the potential use of balsam fir dimension stock in northern Minnesota. At the present time, northern Minnesota has over a million and a quarter acres of spruce balsam fir forest. Balsam fir, one of its main components, is a problem specie. A complete examination of this problem could suggest ways to expand the use of balsam fir stock.

Northern white cedar stands occupy almost one-quarter of a million acres in northern Minnesota. The present market is limited to fenceposts. Much more could be harvested if expanded markets were available. This material makes a very decorative wall paneling. A study in this area would also enhance the possibility of expanded markets for this product. Aspen, the more abundant tree specie in northern Minnesota, is vastly underused. Required testing and performance evaluation could lead to a much larger acceptance of aspen lumber

in a large-growing pallet market in the Midwest. Other areas which could prove to be very profitable in terms of utilization of forest products in the northern Lake States region are in the manufacturing of particle board. The use of particle board (panel made from dry wood particles which have been coated with a binder) by American industry is growing at a phenomenal rate. Particle board is used by various manufacturers of furniture parts, house-trailer parts, sporting goods, games, table tops, etc., has grown tremendously. An analysis of this market could prove to be very useful in the expansion of this fast-growing industry.

Such a laboratory could also look into new opportunities in marketing manufactured summer homes and cottages. The port of Duluth Superior now supplies northern Minnesota and northern Wisconsin with an avenue to world markets. With rising standards of living in many previously underdeveloped parts of the world, new consumer markets are waiting to be satisfied.

One such market area lies in prebuilt, manufactured houses. One of the country's largest such manufacturers, already has designed a prototype small dwelling which they plan to sell in various South American countries.

Research studies from the proposed laboratory would provide information which could be used to expand the use of forest products in the northern Lake States region.

These are but a few of the potential opportunities which could be realized if more effort were applied to researching new markets and new products for the timber resources of the northern Lake States forests. Others could be listed. The extent to which these products could be pursued will depend upon the technical staff and facilities available. An expanded forest service marketing applied utilization project in northeastern Minnesota could help solve the problem of increasing the productive use and economic contribution of northern Lake States forests.

In summary, we feel that the establishment and staffing of a Forest Service Wood Products Marketing and Applied Utilization Laboratory in northeastern Minnesota would be a significant move toward reducing the regional problem of insufficient economic opportunity and chronic underemployment. Similar to the West Virginia laboratory's role in the Appalachian area, the proposed laboratory would provide a key which would unlock the underutilized forest resources of the northern Lake States. We have more than 50 million acres of forested land in the Lake States. We have the wood, we have the labor, and we have the interest in expanding the use of this valuable resource.

The minimum estimates for the construction of a suitable laboratory would be $300,000. It would house study rooms, conference rooms, library, test and evaluation laboratory room, and necessary storage rooms. The staff would consist of approximately 13 professional technicians and scientists, together with an equal number of nonprofessional employees. The yearly minimal operational cost for salaries and other expenses is estimated to be $250,000. This is a small investment in the economic future of the forested regions of northern Minnesota and the northern Lake States. It should pay large dividends. Among the requisites for the project headquarters are: (1) a reasonably central location in a northern Lake States region; (2) an environment in terms of living conditions that would permit recruiting the scientists required for the staff; and (3) access to scientists and supporting facilities in related fields such as are provided by a university campus. We feel that a site in northeastern Minnesota would fit the outlined requirements. The University of Minnesota at Duluth can provide the support necessary for the success of a ongoing project as proposed in this statement. UMD is a growing institution of 3,000 students and 340 faculty and staff. Its departments of business, economics, geography, industrial education, engineering, and mathematics provide skills and facilities that can be drawn upon to aid the wood products program at the station. The administration and the faculty have been most helpful and interested in the marketing research that has been done to date.

We ask that the Interior Subcommittee on Appropriations add to the appropriations bill $300,000 construction costs and $250,000 staff salaries and maintenance costs.

LETTER FROM EARL HARTLEY, EXECUTIVE SECRETARY, WESTERN COUNCIL OF LUMBER AND SAWMILL WORKERS, IN SUPPORT OF APPROPRIATIONS FOR THE FOREST SERVICE

PORTLAND, OREG., *March 2, 1964.*

Hon. CARL HAYDEN,
*Chairman, Senate Subcommittee on Appropriations for Interior and Related Agencies, Senate Office Building, Washington, D.C.*

DEAR MR. HAYDEN: I want to express the appreciation of the Western Council of Lumber and Sawmill Workers for your support of the forestry and conservation programs that are so vital to the national and regional economy. We are keenly aware that the forests of the Pacific Northwest provide jobs for over 134,000 persons in the wood-using industries. This is more than one-third of all of our manufacturing employment. In addition, a large portion of the service and other manufacturing industries depends upon forest industries, for example, the chain-saw logging equipment manufacturers.

The western council has long recognized that research provides the basic information that is essential for maintaining and strengthening the forest economy, upon which so many of our Nation's working people depend for their livelihood. This year, with the emphasis on increasing the Nation's output of goods and services, we are pleased that the new Federal budget provides for strengthening research in forestry throughout the Nation. This increase, though modest, is highly important.

Information is constantly needed on the condition of the timber resource. Detailed up-to-date statistics on the acreage, volume, growth, use and losses of the timber resource are needed almost every day as a basis for solving the problems that face the people of the entire country as well as here in the Pacific Northwest. This year's budget provides for a $150,000 increase in this work, nationwide. We strongly support this proposal. It is particularly important to the Northwest.

The new Forest Service program of forest engineering research is intended to strengthen the forest economy by helping to relieve the cost-price squeeze through development of improved timber harvesting and transportation methods. Here in the West a large part of the much needed timber grows on steep, difficult topography where logging costs and employee safety are prime considerations. The forest engineering research now just well started shows great promise for reducing the costs and hazards of these operations. We in the western council urge Congress to approve the additional $75,000 for this important project provided in the President's budget for fiscal year 1965.

We are also aware of the need for basic wood products research to help assure the continuation of wood's competitive position as an economical, useful, and renewable raw material. We believe that the U.S. Forest Products Laboratory at Madison, Wis., should be modernized and expanded to thereby strengthen this search for new hasic information needed to stimulate development of new and improved wood products. The $3,800,000 included in the President's budget to provide for this is urgently needed so that our timber industry technology can provide increasing valuable products for our economy and rewarding employment for our people.

The health of the forest resource can be measured by the losses due to disease, insects, and animal damage. Forest diseases quietly kill trees, reduce growth, and cause volume losses in living trees. In 1952 disease was ranked as a principal destructive agent with a total growth impact of about 1.4 billion board feet per year for the Pacific Northwest In terms of employment this volume would provide work for 15,000 to 20,000 people in logging and processing into wood products. Forest disease problems have been given only enough attention to develop control measures for a few of the most destructive diseases. Much greater research attention is needed to bring this work up to a level proportionate to its importance in good forest management

Pest insects similarly affect the health of the forest resource and the strength of the forest economy. In the past two decades some of the most damaging insects have been controlled by the use of synthetic organic insecticides.

These chemicals pose certain hazards and must be carefully tested before use. It is imperative that research be stepped up to assure the safe and effective use of chemicals and to develop alternative insect control methods that do not require chemicals. Nationwide, insects cause losses totaling many billions of board feet annually, thus causing the loss of employment as well as weed output. The western council is also greatly concerned with the insect threat to the general health of the forest which provides recreation as well as jobs for our people. We are particularly pleased wtih the work being done at the Forestry Sciences Labora-

tory located on the campus of Oregon State University at Corvallis and urge that this and similar research work be strengthened.

Another problem in the health of our forests is the increasing damage to the forest caused by animals. It was recently estimated that animals cause damage totaling $15 million yearly in Oregon and Washington.

The proposed U S. Forest Service research budget provides for an increase in animal damage research at Olympia, Wash. We are in favor of this definite though small effort to reduce the losses due to these animals.

This animal damage control project is still seriously handicapped by lack of an adequate research laboratory. The State of Washington has provided an excellent 5-acre site for the needed facility by long-term lease to the Forest Service. Need for a research construction appropriation of $300,000 for a Silviculture and Animal Problems Laboratory on this site was emphasized during Senate hearings on appropriations for the Forest Service in 1962 and during both House and Senate hearings in 1963. No funds have been made available for this construction, however, and we are disappointed that this item is not included in the budget for fiscal year 1965. I believe it merits your careful consideration.

We in the western council strongly support each of these much needed increases for research in forestry. Your careful consideration and continued support for this work will be much appreciated.

Cordially yours,

WESTERN COUNCIL, LUMBER AND SAWMILL WORKERS,
EARL HARTLEY, *Executive Secretary.*

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STATEMENT BY W. A. WILLIAMS, JR., ON BEHALF OF NATIONAL ASSOCIATION OF SOIL & WATER CONSERVATION DISTRICTS, CONCERNING BUDGET ITEMS FOR DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES

SOIL AND WATER CONSERVATION DISTRICTS

The 2,940 soil and water conservation districts in the Nation are increasingly concerned about the protection and development of public lands being managed by the Federal Government. This concern is especially evident among the districts of the West because it is in the West that the programs of districts and those of the public land agencies are most frequently and directly related.

The National Association of Soil & Water Conservation Districts (NACD) wishes to make known its strong support for the soil and moisture conservation, range management, watershed, and related programs of several agencies of the Department of the Interior—and also the national forest program of the Forest Service in the Department of Agriculture.

As you know, soil and water conservation districts are local units of government organized under State laws. Across the country, approximately 1,890,000 farmers, ranchers, and other landowners are cooperating with their districts in soil, water, forest, and other programs of resource protection and development.

The program of each district is tailormade to the needs of the district. It is developed by local people, with the assistance of scientists and technicians from appropriate Federal and State agencies—and also private organizations. The program is managed by a governing body of local people, elected by the landowners and operators within the district. These district supervisors serve without pay. They are charged not only with the responsibility of developing long-range programs of resource conservation and development, but also annual plans of work which lead to accomplishment of the long-range programs.

It is still a fact, regardless of how stereotyped it may seem, that erosion and many other forms of resource damage take place without regard to either political, administrative, or ownership boundary lines. The work to protect resources and to develop them for greater usefulness must also proceed across these manmade boundary lines. This is a fact based on nature, and we are well-advised to recognize it.

We recognize it in districts as we move forward with work in cooperation with individual landowners and operators on their privately owned lands. There is need for greater recognition of the fact in connection with conservation and development work on public lands intermingled with, or adjacent to, privately owned lands.

To put the problem another way, there is an urgent need for much closer collaboration in actual conservation work, on the ground, between public land administering agencies and private landowners in districts. The work of each,

when it is carried forward on the basis of natural units such as watersheds and as part of a comprehensive program for an entire unit, will then supplement and support the work of the other for the mutual benefit of all parties concerned and the resources themselves.

The public lands comprise very large areas, particularly in parts of the West. We are mindful, too, that extensive areas of public lands in the West are handicapped by very sparse vegetation and highly erodible soils. Long periods of drought are interspersed by rainstorms of high intensity, in short, the task of conservation is not only formidable from the standpoint of sheer size; it is also made exceedingly difficult by climatic and other conditions.

If it is true that the Nation cannot proceed energetically and deliberately to tackle the whole job of conservation and development of public land resources at one time, then we recommend as a matter of public policy that efforts be directed first to those areas where there are the greatest concentrations of intermingled public and private land ownerships. These are the areas, in our judgment, where joint efforts toward mutually determined goals can achieve the most conservation, in the shortest time, for the benefit of the greatest number of people. These are the areas and circumstances, too, where the greatest returns can usually be expected from each dollar expended.

### WISE FISCAL MANAGEMENT

The pressures continue to mount on our land and water—and on our forests, wildlife, grass, and recreational areas. Accordingly, we believe it is a basic responsibility of leadership in the Congress, and in the executive branch of Government, to anticipate the oncoming requirements of the Nation for these resources and prepare to meet them in an orderly, effective way. It is only rarely that sound development and conservation of resources can be accomplished swiftly. This is work that requires time.

It is a fact, and one that all of us should recognize, that the longer this work is postponed, the costlier it becomes. In terms of Federal dollars and the public interest, it is less expensive to conserve than to repair and rebuild. It costs less to plant and maintain grass than to pay flood damages. The price of upland erosion control is less than the cost of downstream reservoir silting and reduced water storage capacity.

Accordingly, we in the NACD believe it is wise fiscal management as well as wise resource management to provide more adequately for the conservation and resource development operations of the land administering agencies of the Interior Department, and also the Forest Service.

This committee is well versed in the extent of land and vegetative damage on the public lands. You are well aware of the increasing yield of silt, the increasing rate of erosion, and the unnecessary waste of water. All these underscore the very serious lag in conservation and resource development operations on the public lands.

Moreover, we who also have a responsibility for conservation on the adjacent and intermingled private lands become increasingly conserved by the fact that existing limitations on public land operations serve to slow down and restrict what we can accomplish on private lands.

On the other hand, we believe that an administrative and fiscal policy designed to accelerate conservation work on intermingled public-private lands would lead, in a very short time, to a companion acceleration of work on the intermingled private lands.

### THE BUDGET ESTIMATES

We are pleased to see that the budget estimates submitted by the administration for fiscal year 1965 recognize, at least moderately, the pressing needs facing us now and in the years directly ahead.

We support the budget request of $150,419,000 for forest land management by the Forest Service. Included in this figure is a sorely needed increase for construction and maintenance of forest roads and trails. Too large a share of the national forest land is still "locked up" because of inadequate roads and trails. The progress that can be made with the funds recommended in the budget will open up, beneficially, new and larger areas. Our national forest lands will become more widely accessible to traveling and vacationing Americans, and also more readily subject to the kind of management and development which is needed in the decades ahead.

As soon as possible, as a followup to this roadbuilding advance, there should be a step-up in appropriations for construction and maintenance of public facilities

in the national forests; and also for water management and watershed land treatment operations affecting intermingled private lands and downstream values. The soil and water management and range resource management items in the Forest Service budget for fiscal 1965 show no increase over the 1964 level. Expansion of this work, either in conjunction with accelerated public works projects, a Youth Conservation Corps, or the establishment of joint Forest Service-conservation district resource improvement projects, is a vital need ahead.

The increase of approximately $4 million in the budget estimates for forest research is a recognition of growing needs in this field, not only for wood utilization research, but also the critically important studies necessary to cope with the mounting damages caused by forest insects and disease. We support the forest research increase included in the budget for fiscal 1965.

BLM LANDS

In our judgment, the major shortcoming in the budget estimates for soil and water conservation work by Department of the Interior agencies occurs in the recommendation for the Bureau of Land Management.

As we have tried to emphasize before, conservation work on the BLM lands has fallen so far behind, and the needs are now so urgent, that a major breakthrough should be undertaken in the wholly inadequate level of progress which has marked this work in recent decades. What is needed is a major recovery effort geared carefully and deliberately over a period of years. We urge that this effort be inaugurated during the 1965–75 decade.

The increase of nearly $700,000 in the 1965 budget estimate for soil and moisture conservation work by BLM is earmarked primarily for rehabilitation of burned-over areas. This is certainly work of high-priority importance, and we favor it, but it represents no more than a fraction of the total job yet to be tackled.

We urgently recommend that the soil-and-moisture conservation work of the Bureau of Land Management in fiscal year 1965 be expanded by raising the appropriation for this work to $15 million.

We believe the additional funds are needed and should be used by BLM for conservation operations on lands under its management which are located in watersheds containing adjacent or intermingled acreages of privately owned lands. In these locations, we believe BLM and the local conservation district (or districts) should develop comprehensive conservation programs, covering both public and private lands. The programs should provide for a coordinated attack on the resource problems in the designated watershed areas.

Past experience has demonstrated that this type of approach will yield maximum results. In "pilot" project areas sponsored by districts, and in other demonstration areas, the coordination of public and private effort over project or watershed areas has proven its effectiveness. We are now past the demonstration stage and ready to move into a more mature and deliberate attack, designed to catch up with the enormous conservation job on BLM-administered lands during the remainder of this century.

We advocate the establishment, during 1965, of two or more resource improvement projects by BLM in each State having any substantial acreage of land under BLM administration. We believe these resource improvement projects should be established in locations where the work of the BLM on public lands can be coordinated effectively with the work of conservation districts and cooperating private landowners—all within natural watershed areas. We believe a comprehensive program should be developed covering all types of ownership and all types of renewable resources within the resource improvement project areas.

It would be entirely practical to develop advance project proposals, with cost-benefit estimates, before the actual establishment of such resource improvement projects. Although the BLM probably has adequate authorization now to proceed with such projects, it might be desirable to submit project proposals to appropriate subcommittees of the Congress, for advance approval, prior to their establishment—as in the case of flood control and watershed projects.

Our primary concern, however, is to move ahead with the establishment—and the resource accomplishments—of such projects by whatever route is deemed most practical and necessary.

An increase in the BLM appropriation to $15 million for soil and water conservation work in fiscal year 1965 would permit the Bureau to proceed with essential preliminary work toward the establishment of projects—or to the submission of project proposals to the Congress.

There are other Bureau of Land Management appropriations items which are important to districts. The forestry and grazing land management items are,

in our judgment, less than the needs require. The budget proposal of $8,685,000 for forestry and the proposal of $6,172,000 for grazing land management are essentially stabilized estimates—recommending the same level of effort in 1965 as in recent years. Yet the lag of improvement work on BLM forest and range land is of such proportions that past levels of accomplishment cannot hope to encompass the full dimensions of the job.

We believe BLM's appropriation for forestry should be increased to $12 million, and for grazing land management to $7,500,000.

We recommend that soil and moisture conservation funds for the Bureau of Indian Affairs be increased for fiscal year 1965 to $7,500,000—a rise of approximately $1,500,000 over 1964—rather than cut back to $5,408,000 as the budget proposes. The additional funds should be applied to the application of conservation measures in districts on reservation lands. The work is programed; the need is more than evident; but funds are lacking for the kind of progress required.

The NACD supports the budget items for soil and moisture conservation operations by the Bureau of Sport Fisheries and Wildlife, and by the National Park Service. These items would continue work in 1965 at approximately the same levels as this fiscal year.

CRITICAL REGION

The economic advancement of the United States is linked, inevitably, with the protection, wise use, and orderly development of its natural resources. While this work may be limited or postponed across a span of years, it cannot be limited or postponed indefinitely without incurring penalties on national growth and national well-being. The decisions on the rate of resource work on the publicly owned lands of the Nation are centered uniquely on the Congress. It is our view and we believe it must be yours, that the work on public lands should not be carried on at a slower rate, or with less quality, than the resource work on private lands.

Some of the Nation's most difficult conservation and resource development problems are concentrated on the public lands and intermingled private lands of the West. This is clearly the most hazardous erosion area of the country. The values at stake are enormous, because so much depends on the vital irrigation, water storage, power, and recreation reservoirs already in existence—or considered for construction in the years directly ahead. Yet our western reservoirs are being filled with silt faster than anywhere else in the Nation.

The techniques of soil erosion and silt control are known. We are not faced with the problem of learning how to cope, from a technical or scientific standpoint, with the erosion and vegetative problems. We are faced with the problem of financing the work that needs to be done.

Soil and water conservation districts—and the thousands of western landowners and operators cooperating with these districts—stand ready to share their know-how and efforts with the Federal Government in a joint enterprise. We are not only ready; we are eager. The work which is vital to the welfare of the public lands is vital, also, to those who live and work near the public lands, depend on them for water, and often use them under permit for grazing.

The resources need greater attention; we want to help.

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LETTER FROM MRS. JAMES H. ROWE, JR., CHAIRMAN, NATIONAL CAPITAL PLANNING COMMISSION, REGARDING LOCATION OF THE JOHN F. KENNEDY CENTER FOR THE PERFORMING ARTS

MARCH 10, 1964.

Hon. CARL HAYDEN,
*Chairman, Committee on Appropriations,*
*U.S. Senate,*
*Washington, D.C.*

DEAR MR. CHAIRMAN: Notwithstanding press reports over the weekend which may have given the erroneous impression that there had been a change in its position, the National Capital Planning Commission continues to support the Potomac River site for the John F. Kennedy Center for the Performing Arts.

At the Commission's regular monthly meeting on Thursday, March 5, the Center was discussed in executive session. In a formal action the Commission requested the Center's trustees to prepare a model which would show the proposed building in relation to the inner loop freeway and the Theodore Roosevelt bridge ramps and interchange. At the same time the Commission requested the District of Columbia Highway Department to report as soon as possible on

the feasibility of reducing the proposed interchange from three to two levels. Both of these actions were taken for the purpose of improving the presently designated site—not for the purpose of abandoning it.

This letter is sent to you now so that your committee may be fully informed of the National Capital Planning Commission's position.

Sincerely yours,

Mrs. JAMES H. ROWE, Jr., *Chairman.*

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LETTER FROM LEE P. CLAGETT, ARLINGTON MEMORIAL CO., CONCERNING COMPENSATION TO BUSINESSMEN FOR MOVING COSTS INCURRED IN CONNECTION WITH LOCATION OF JOHN F. KENNEDY CENTER FOR THE PERFORMING ARTS

MARCH 12, 1964.

Hon. CARL HAYDEN,
*Chairman, Senate Committee on Appropriations,*
*New Senate Office Building, Washington, D.C.*

DEAR SENATOR HAYDEN: On Friday, March 6, at 10 a.m. I attended the subcommittee hearing on the proposed John F. Kennedy Center for the Performing Arts.

While the hearing covered several facets of the proposed Center, my particular interest was in the statements of the several business people who lease property on the proposed site, and will be forced to move when the Center is built. My business in the 500 block of 26th Street is one of these, and it is my belief, also that of the others in the area, that we should be compensated for our moving costs.

I have conducted my business at this location since 1945, and since a great part of my activity is placing monuments in Arlington National Cemetery, I initially selected this area for its proximity to the cemetery. There is, of course, no other available similar site either in this area or near the cemetery on the Virginia side, so that in addition to the moving costs, a relocation cannot help but affect my business adversely.

If there were any possibility of my particular business surviving financially such a move and relocation, I would be inclined to simply make the best of it as one must from time to time in operating a small business with limited resources. However, this will undoubtedly not be possible, and it is disheartening to realize that my years of work to build my business since I started it in 1938 will result in failure—brought about by no fault of my own.

I am now almost 50 years old and since I have spent most of my life in this particular field, I have no training for any other work. While I do not have a large number of employees, three of them have been with me from periods of a minimum of 8 years to a maximum of 22 years. They support themselves and their families, and would be as handicapped as I in finding other employment.

I maintain a shop with a good deal of heavy and special equipment used in my monument business, also in another building an office and display of sample monuments, so that moving costs will be neither simple nor inexpensive.

At the hearing, I noted that the other business people to be affected filed with the committee a written statement on the above subject and in several instances were called upon for their views.

My purpose in writing is to ask that this letter be made a part of the record of the hearing, so that it may be included in any consideration given the matter.

Sincerely yours,

LEE P. CLAGETT.

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STATEMENT BY WASHINGTON BUILDING CONGRESS, INC., REGARDING NATIONAL CULTURAL CENTER

RECONSIDERING PROPOSED NATIONAL CULTURAL CENTER

The Washington Building Congress is pleased to note the renewed effort to secure funds for the proposed National Cultural Center. The decision to reduce the ambitious scope of the proposal to more manageable proportions was wise—provided it is recognized that this should entail a complete restudy of the project and not merely a partial completion of the project as originally proposed.

Before the Cultural Center reaches the stage of bricks and mortar, however, it should be reconsidered not only from the point of view of its size but from the point of view of its location. We are firmly convinced that, before the project is actually built, there will be almost unanimous opinion that it should not be built

in the location which is presently proposed. It would be most unfortunate, therefore, if funds are solicited on the basis that the presently proposed location cannot be changed. This statement by the Washington Building Congress is presented for the purpose of suggesting a different location before it is too late to do so.

It is natural that the sponsors of the Cultural Center were attracted to the riverside location because of the spectacular setting which it would provide. In making this choice, however, we believe that they actually underestimated the importance of the Cultural Center. A magnificent setting and background for the buildings of the Cultural Center are desirable if they are conceived as architectural monuments. The true function and enormously important purpose of the Cultural Center, however, should be that of playing its proper role in the life of the Nation's Capital.

The city of Washington, like most other large American cities, is going through a process of blight which affects both its residential areas and its downtown shopping areas. We are groping for a response to this disease through the process of urban renewal and the work of "Downtown Progress." In the process of seeking to recreate the central city we are becoming aware of the fact that we must seek a close relationship between the spaces in which to live, work, shop, play, and learn. These should not be areas that are carefully segregated by zoning but, on the contrary, cleverly combined by judicious planning and the free play of natural forces so that each phase of activity helps rather than injures the others.

We may be able to stimulate renewed interest in the commercial possibilities of the downtown shopping area but we shall certainly not be able to do so if all the middle income and upper income families flee to the suburbs.

We may be able to stimulate a return to the city of the families in the middle and upper income groups but we shall probably fail if the center of the city ceases to be an attraction and becomes, instead, a deserted area at night.

The center of the city should remain its center of attraction, at night as well as during the day, and every effort should be made to locate centers of interest close to and within walking distance of the hotels and the downtown shopping district.

In this fashion the parking facilities that are needed in the center of the city can be used at night as well as during the day; subway stations can serve a double purpose; pedestrian traffic can be at a maximum, adding to the liveliness of the sidewalks at night at the same time that it reduces congestion in the streets.

The Washington Building Congress endorses urban renewal, "Downtown Progress," and the Cultural Center but it recognizes that, important as these are, they are only elements in city development and that good city planning requires that they work with rather than against each other.

The Cultural Center, in its present location, tends to decentralize the night life of the city; this is not good planning either for the city or for the successful use of the Cultural Center itself, viewed as an independent and separate project.

A location in or near Franklin Square, for instance, would be within walking distance of the downtown shopping area and close to hotels and close to large concentrations of urban population; a cultural center in this location would benefit downtown as well as the new residential area to be rebuilt to the north of it. There may very well be better locations but this is at least one location that would seem to meet most of the requirements suggested in this statement. We believe it is better to build an effective, useful, and usable center of culture, fully integrated with the city's night life, than to build a beautiful monument in splendid isolation between the river and the freeway.

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LETTER FROM DR. I. LAWRENCE KERR, AMERICAN DENTAL ASSOCIATION, URGING INCREASED FUNDS FOR THE DENTAL PROGRAM, INDIAN HEALTH SERVICE

MARCH 5, 1964.

Hon. CARL HAYDEN,
*Chairman, Committee on Appropriations, Subcommittee on Department of Interior and Related Agencies, Senate Office Building, Washington, D.C.*

DEAR SENATOR HAYDEN: I am writing you in regard to fiscal 1965 appropriations for the Division of Indian Health of the U.S. Public Health Service.

The American Dental Association has been long concerned with the health of the American Indian and his ethnic relations in Alaska: the Eskimo, the Alaskan Indian, and the Alaskan native. The health needs of this segment of our popula-

tion are significantly greater than other groups because of unusual physical, social, and related ecological factors and because of this group's distinct attitude toward health services. The conditions which have rendered the Indian population immobile, in tightly confined and often remote areas, further intensify the need for a lasting solution.

The association knows that Congress has been becoming more and more aware of the health needs of the Indian. The notable increase in effective performance by the U.S. Public Health Service, since it received this responsibility in 1955, would not have been possible without substantial congressional appropriations. Related to the size of the problem, however, such success serves merely to underscore the need for constant and increasing support of the well-constructed and well-administered programs of the Division of Indian Health.

Dental health is essential to total health. The laws of the land are replete with evidence that Congress has accepted this maxim as unqualifiedly as have all health professions. The program established within the Division of Indian Health to meet the dental needs of program recipients deserves, therefore, careful and sympathetic consideration.

The U.S. Public Health Service inherited a massive backlog of accumulated dental neglect when it assumed full responsibility for the health of the Indian people. Since the resources needed to reduce this were lacking and since most forms of dental disease are progressive, the decision was reluctantly reached that care of the adult population would be restricted almost entirely to emergency treatment so that most of the limited resources available—in terms of professional and subprofessional personnel, equipment, and supplies—could be applied on an incremental basis to children. This approach has characterized the program of the Dental Services Branch of the Division for several years. Professional services are extended to children through the efforts both of commissioned corps personnel and of civilian dentists under contract. The program is sound in design but, in operation, it is far too limited because of restrictions on personnel and equipment imposed by the inadequate budget.

Statistics for fiscal 1963 indicate that slightly more than 300,000 of the 380,000 persons in the Indian beneficiary population were under age 18 and that of this number, approximately 220,000 were between ages 6 and 18, the critical years for the control of dental disease and the teaching of sound oral health habits. Only 87 dental officers and 96 clinical auxiliaries were available to serve and educate this group during fiscal 1963. The dentist-to-patient ratio, with respect to the 6–18 year age group was 1:2,500, as contrasted with about 1:1,900 in the general population. The dental officers and civilian dentists were able to treat only 88,000 patients in the reporting year. These patients received a total of 384,610 services, an impressive figure until it is realized that these same patients needed but could not be provided an additional 187,000 services. Further, since the number of patients treated represented less than 25 percent of the total beneficiary population, virtually all of whom need dental care, it is obvious that the dental program needs to be broadened considerably in scope.

The professional and subprofessional dental personnel serving with the Division of Indian Health are a dedicated and competent group. They deserve encouragement and support. More important, their patients deserve the opportunity to receive necessary health care.

The American Dental Association respectfully submits that Congress should provide that level of assistance necessary for an effective dental service for all beneficiaries of the Division of Indian Health. The association, therefore, urges your committee to increase substantially that segment of the Division's fiscal year 1965 appropriation that pertains to the activities of the Dental Services Branch.

On behalf of the association, let me thank you for this opportunity of communicating to you and your colleagues the viewpoint of the dental profession. It is my hope that this letter may be made part of the hearing record.

Sincerely,

I. LAWRENCE KERR, D.D.S.,
*Council on Legislation, American Denatal Association.*

STATEMENT SHOWING EFFECT ON DEPARTMENT OF THE INTERIOR AGENCIES OF BUDGET REDUCTIONS SET FORTH IN HOUSE DOCUMENT NO. 240, MARCH 9, 1964

BUREAU OF LAND MANAGEMENT

*Management of lands and resources*

Soil and moisture conservation: Reduction of $75,000 in the request of $11,076,000 for soil and moisture activities exclusive of $850,000 for rehabilitation programs for burned-over areas. Reduction of 40 temporary positions.

BUREAU OF INDIAN AFFAIRS

*Education and welfare services*

Educational assistance, facilities, and services: Operation of additional Federal school facilities, reduction of $60,000 in the increase of $2,944,590 and 60 temporary positions.

GEOLOGICAL SURVEY

*Surveys, investigations, and research*

Topographic surveys and mapping: Resumption of work on the National Atlas, reduction of $72,000 in the increase of $346,000, and 24 permanent positions.

Geologic and mineral resource surveys and mapping: Reduction of $27,000, and nine permanent positions in the increase of $985,000 for accelerated studies of the earth's crust and upper mantle.

Marine geology and hydrology: Reduction of $45,000 and 15 permanent positions in the increase of $500,000 for extension of studies in this activity.

Water resources investigations: Reduction of $420,000, and 140 permanent positions in the requested increase of $1,265,036 for expanding primary networks for studies of surface and ground water resources.

Conservation of lands and minerals: Reduction of $36,000, and 12 permanent positions in the increase of $100,000 to provide for increased workload in lease supervision and land classification.

BUREAU OF MINES

*Conservation and development of mineral resources*

Bituminous coal: Reduction of $9,000 in request of $8,119,000 for this activity, exclusive of $217,000 increase for research in methane mining. Reduction involves one permanent and two temporary positions.

Petroleum, natural gas, and oil shale: Reduction of $5,000, and two temporary positions in request of $3,982,000 for this activity, exclusive of $200,000 increase for in situ retorting of oil shale.

Minerals and metals: Reduction of $17,000, and one permanent and five temporary positions in request of $16,298,000 for this activity.

*Health and safety*

Inspections, investigations, and rescue work: Reduction of $10,000, and one permanent and one temporary position in the request of $6,747,000 for this activity, exclusive of $140,000 increase for expansion of safety educational program.

Health and safety research: Reduction of $9,000, and one permanent and one temporary position, in the request of $1,620,000 for this activity, exclusive of increases totaling $620,000 for research in fine-coal float dust explosion, mine ventilation, and expansion of methane detection.

*General administrative expenses*

Reduction of $15,000, and two permanent and three temporary positions in the request of $1,425,000 for this appropriation.

BUREAU OF COMMERCIAL FISHERIES

*Management and investigations of resources*

Research: Reduction of $50,000, and 20 temporary positions in the increase of $495,000 for biological research on pesticides.

BUREAU OF SPORT FISHERIES AND WILDLIFE

*Management and investigations of resources*

Management of fishery resources: Reduction of $25,000 and eight temporary positions in the request of $6,882,000 for this activity, exclusive of increases of $325,000 for new hatchery operation and $101,000 for wage board costs.

Administration of wildlife resources: Reduction of $35,000 and 12 temporary positions in the request of $12,444,627 for this activity, exclusive of increases totaling $934,373 for management of new refuges, more adequate management of existing refuges, employees' compensation payments, replacement and overhaul of aircraft, and wage board costs.

# AGENCY REQUESTS FOR AMENDMENTS TO HOUSE BILL

## DEPARTMENT OF THE INTERIOR

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
*Washington, D.C., March 20, 1964.*

Hon. CARL HAYDEN,
*Chairman, Committee on Appropriations,*
*U.S. Senate, Washington, D.C.*

DEAR MR. CHAIRMAN: Referring to your letter of March 18, 1964, there are submitted proposed adjustments in the Department of the Interior and related agencies appropriation bill for fiscal year 1965, presented in the form of amendments, with an explanatory statement covering each change recommended. The amendments refer to page and line numbers of the bill as reported by the House Committee on Appropriations.

We appreciate this opportunity to present recommendations for changes in the bill, which we consider essential to our operations. It is our desire to cooperate in every way in the consideration of these amendments.

Sincerely yours,

STEWART L. UDALL,
*Secretary of the Interior.*

Enclosure.

## BUREAU OF INDIAN AFFAIRS

### EDUCATION AND WELFARE SERVICES

(House hearings, pp. 763–780)

(Senate hearings, p. 141)

| | |
|---|---|
| Appropriation, 1964 | $89,235,250 |
| Estimate | 96,910,000 |
| House allowance | 95,200,000 |
| Restoration requested | 1,710,000 |

(P. 5, line 18)

Amendment requested:

Page 5, line 18 strike out "$95,200,000" and insert in lieu thereof "$96,910,000",—the estimate, or an increase of $1,710,000 in the appropriation.

HOUSE REPORT

"The committee recommends $95,200.000, an increase of $5,964,750 in the 1964 appropriation and a decrease of $1,710,000 in the budget request.

"The amount allowed by the committee by activity compared with the 1964 appropriation and the estimate for 1965 is as follows:

"The amount allowed includes the full budget request, an increase of $500,000, for assistance to pupils in non-Federal schools, and an increase of $1,675,000, a reduction of $1,676,200 in the request, for the operation of additional Federal school facilities and for improvement of operations at existing facilities in fiscal year 1965. The additional 200 positions provided, together with the filling of existing vacancies, should make adequate provision for the estimated 2,253 additional students in boarding and day schools during the next fiscal year."

JUSTIFICATION

This amendment restores the reduction of $1,710,000 made by the House in the budget estimate. This amount is distributed to activities as follows:

| Activity | Appropriation, 1964 | Budget estimate, 1965 | House allowance, 1965 | Restoration requested |
|---|---|---|---|---|
| 1. Educational assistance, facilities, and services | $66,118,250 | $69,960,250 | $68,284,050 | +$1,676,200 |
| 2. Welfare and guidance services | 11,264,000 | 11,594,000 | 11,594,000 | ---------- |
| 3. Relocation and adult vocational training | 9,420,000 | 12,023,000 | 12,023,000 | ---------- |
| 4. Maintaining law and order | 2,433,000 | 2,553,000 | 2,553,000 | ---------- |
| 1964 Pay Act costs | ---------- | 779,750 | 779,750 | ---------- |
| Transfers in the estimate and rounding | ---------- | ---------- | −33,800 | +33,800 |
| Total | 89,235,250 | 96,910,000 | 95,200,000 | +1,710,000 |

A breakdown of the restoration request by objects of expenditure follows:

| | | |
|---|---|---|
| 11 | Personnel compensation | $1,045,625 |
| 12 | Personnel benefits | 84,695 |
| 21 | Travel and transportation of persons | 100,000 |
| 22 | Transportation of things | 50,000 |
| 23 | Rent, communications, and utilities | 25,000 |
| 25 | Other services | 154,680 |
| 26 | Supplies and materials | 100,000 |
| 31 | Equipment | 150,000 |
| | Total | 1,710,000 |

The increase in funds of $2,175,000 provided in the bill will allow $500,000 for assistance to public school districts educating Indian children and a limited increase in new Federal school enrollment. For this purpose the House committee has allowed 200 additional permanent positions.

Restoration of $1,710,000 and 200 positions is required to accomplish the work proposed by this amendment. The Bureau's estimates were based on enrollment of an additional 2,253 pupils in boarding schools, approximately 240 additional pupils in 8 new day school units and $466,610 for increased plant operations. If the reduction made by the House is allowed to stand it will be necessary to absorb the reduction by reducing standards in all Bureau schools in order to provide for the additional pupils. This would mean lower instructional standards and lower feeding standards for all students in Bureau schools and would result in fewer guidance services to boarding school children during their out-of-school hours. These standards of operation would be further reduced to meet the increased costs of power, heat, and light and other operating costs required in the operation of schools.

## BUREAU OF INDIAN AFFAIRS

### RESOURCES MANAGEMENT

(House hearings, pp. 781–812) (Senate hearings, p. 158)

| | |
|---|---|
| Appropriation 1964 | $37,691,300 |
| Estimate | 40,728,000 |
| House allowance | 40,178,000 |
| Restoration requested | 550,000 |

(P. 6, line 2)

Amendment requested:

Page 6, line 2, strike out "$40,178,000" and insert in lieu thereof "$40,728,000", the estimate an increase of $550,000 in the appropriation.

HOUSE REPORT

The House report made no statement, except a tabular breakdown by activities.

JUSTIFICATION

This amendment restores the reduction of $550,000 made by the House in the budget estimate. This amount is distributed to activities as follows:

| Activity | Appropriation, 1964 | Budget estimate, 1965 | House allowance, 1965 | Restoration requested |
|---|---|---|---|---|
| 1. Forest and range lands | $4,804,100 | $4,854,100 | $4,854,100 | |
| 2. Fire suppression | 140,000 | 140,000 | 140,000 | |
| 3. Agricultural and industrial assistance | 5,499,400 | 6,229,400 | 6,229,400 | |
| 4. Soil and moisture conservation | 5,917,600 | 5,317,600 | 5,317,600 | |
| 5. Maintenance of roads | 3,134,800 | 3,584,800 | 3,584,800 | |
| 6. Development of Indian arts and crafts | 312,700 | 312,700 | 312,700 | |
| 7. Management of Indian trust property | 5,921,600 | 6,368,600 | 6,368,600 | |
| 8. Repair and maintenance of buildings and utilities | 10,642,700 | 12,192,700 | 11,642,700 | $550,000 |
| 9. Operation, repair, and maintenance of Indian irrigation systems | 1,318,400 | 1,309,400 | 1,309,400 | |
| 1964 pay act costs | | 418,700 | 418,700 | |
| Total | 37,691,300 | 40,728,000 | 40,178,000 | 550,000 |

A breakdown of the restoration request by objects of expenditure follows:

| | | |
|---|---|---|
| 11 | Personnel compensation | $112,000 |
| 12 | Personnel benefits | 9,000 |
| 25 | Other services | 429,000 |
| | Total | 550,000 |

*8. Repair and maintenance of buildings and utilities*

Restoration of the $550,000 is required for repair and maintenance of buildings constructed in fiscal year 1964 for which funds have not previously been appropriated. In order to protect the large capital investment the Government is making in new facilities, a minimum standard of repair and maintenance should be maintained.

The request for this activity included 60 new positions. The committee allowed 40 new positions or a reduction of 20 new positions. Restoration of these 20 new positions is requested so that the Bureau will be able to provide the necessary repair and maintenance personnel to staff the new educational facilities that will be operating for the first time in fiscal year 1965. These positions are needed not only to protect the Government's investment in these new facilities, but also to keep these plants in a safe and efficient operating condition for the children and educational staff that will be using them.

## BUREAU OF INDIAN AFFAIRS

### CONSTRUCTION

(House hearings, pp. 827–860)

(Senate hearings, p. 179)

| | |
|---|---|
| Appropriation, 1964 | $58,300,000 |
| Estimate | 51,176,000 |
| House allowance | 46,700,000 |
| Restoration requested | 4,476,000 |

(P. 6, line 12)

Amendment requested:

Page 6, line 12, strike out "$46,700,000" and insert in lieu thereof "$51,176,000", the estimate, or an increase of $4,476,000 in the appropriation.

HOUSE REPORT

"The amount allowed provides for the following construction program during fiscal year 1965:

| | |
|---|---|
| 1. New Indian day and boarding schools, dormitories, and related facilities | $33,534,000 |
| 2. Major alterations and improvements | 5,000,000 |
| 3. Employee housing | 700,000 |
| 4. Water exploration and development | 390,000 |
| 5. Water and sanitary sewer and jail facilities | 710,000 |
| 6. Advance planning | 400,000 |
| 7. Navajo Indian irrigation project | 4,700,000 |
| 8. Other irrigation systems | 3,700,000 |
| Subtotal | 49,134,000 |
| Reduction due to anticipated slippage in construction program | −2,434,000 |
| Total | 46,700,000 |

"The committee has approved the budgeted construction program except for the proposed conversion of the Tongue Point naval installation at Astoria, Oreg., to provide a high school at an estimated cost of $4,963,000, to be financed with a reprograming of $2,921,000 of fiscal year 1964 funds and an additional appropriation of $2,042,000 for fiscal year 1965. Based on detailed review, the committee is convinced that the extensive conversion of the old facilities of this abandoned naval base and the additional new construction required to provide a suitable school are not warranted, as the initial savings expected compared with all new construction would soon be offset by excessive annual operation and maintenance costs. The committee also questions the advisability of relocating the Indian students to this location, far removed from their homes.

"The funds provided for new day and boarding schools will provide for 2,400 additional seats and replacement of 1,380 existing seats in substandard buildings in the existing Bureau school plants.

"Considering the unobligated balance of $37.9 million available as of January 31, 1964, it is believed that the reduction recommended can be readily absorbed through anticipated slippage in the 1965 construction program. The committee expects that the Bureau will continue to use standard plans and specifications and will continue its efforts to achieve greater economies in planning and construction costs."

JUSTIFICATION

This amendment restores the reduction of $4,476,000 made by the House in the budget estimate for the appropriation. This amount was cut from the 1965 construction program as shown in the following table.

| Activity | Appropriation, 1964 | Budget estimate, 1965 | House allowance, 1965 | Restoration requested |
|---|---|---|---|---|
| 1. Buildings and utilities | $52,800,000 | $42,776,000 | $38,300,000 | +$4,476,000 |
| 2. Irrigation systems | 5,500,000 | 8,400,000 | 8,400,000 | |
| Total | 58,300,000 | 51,176,000 | 46,700,000 | +4,476,000 |

A breakdown of the restoration requested by object of expenditure follows:

| | | |
|---|---|---|
| 11 | Personnel compensation | $243,000 |
| 12 | Personnel benefits | 20,000 |
| 21 | Travel and transportation of persons | 10,000 |
| 32 | Lands and structures | 4,203,000 |
| | Total | 4,476,000 |

BUILDINGS AND UTILITIES

Restoration of the $4,476,000 reduction is required to accomplish the work proposed by this amendment.

The House committee disapproved the proposed conversion of the Tongue Point naval installation to provide high school facilities for Indian children ac-

counting for a reduction of $2,042,000 in the construction program. This conversion work will result in a substantial savings in the initial cost of construction, and restoration of this amount is requested in order to provide this needed high school facility. The House committee recommended that $2,434,000 of the total reduction could be absorbed through anticipated slippage in the 1965 program. The preparation of drawings and specifications is proceeding on a schedule which will result in the total obligation of all available construction funds by the end of the 1965 fiscal year. The estimated cost of each construction project included in the Bureau's construction program is based upon the particular need of the individual projects and it is necessary to have funds available in order to award construction contracts. If the $38,300,000 allowed by the House committee is not increased to restore the $2,434,000 reduction, planned projects totaling that amount will have to be delayed until after fiscal year 1965.

This amendment restores the reduction of 40 permanent positions below the fiscal year 1964 level made by the House in the buildings and utilities program.

Restoration of the 40 permanent positions is required to accomplish the construction program approved by the House committee. The projects now under construction and scheduled for construction from the fiscal year 1964 appropriation will carry forward through 1965 and some projects from that year will carry through 1966. Each project requires supervision and inspection in the field as well as management control for approval of material and scheduling. Each new project in the 1965 construction program must have drawings and specifications prepared prior to actual construction. While the budget request is less in 1965 there are approximately the same number of projects to be designed and constructed in the Bureau's fiscal year 1965 program as in the 1964 program. Restoration of the 40 positions is necessary in order to enable the Bureau to carry out the most efficient and economical construction program possible.

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## BUREAU OF INDIAN AFFAIRS

### General Administrative Expenses

(House hearings, pp. 912–915)

(Senate hearings, p. 219)

| | |
|---|---|
| Appropriation 1964 | $4,265,000 |
| Estimate | 4,331,000 |
| House allowance | 4,331,000 |
| Restoration requested | |

#### HOUSE REPORT

"The increase provided is for pay increase annualization. In addition to this direct appropriation, the budget estimate proposed the use of $1,510,000 of program funds, an increase of $135,000. The committee has allowed an increase of $42,000 for pay increases, but has disallowed the program increase of $93,000, including provision for 11 new employees. Effective use of existing manpower in the Washington and area offices should provide adequately for the Bureau's overhead requirements in fiscal year 1965."

#### JUSTIFICATION

*Facilitating administrative services*

Approval is requested to apply $1,510,000 of program funds which involves an increase over 1964 or $135,000 and 11 positions. Of this increase, $42,000 is for increased pay costs and $93,000 is for increased programs. The proposed 11 positions, to be financed from program funds, will assist the administrative offices in keeping pace with the increasing workload caused by expanding program activities. This housekeeping workload must be accomplished if substantive programs are to be efficiently executed.

The committee has allowed $42,000 for pay increases. Restoration of the requested authorization to use $93,000 of program funds will provide the minimum expansion needed to service Bureau operating programs.

The total amount requested for the administration program in 1965 is only 2.8 percent of the total funds requested for the entire Bureau.

## NATIONAL PARK SERVICE

### MANAGEMENT AND PROTECTION

(House hearings, pp. 985–1030 and 1115–1118)

(Senate hearings, p 291)

| | |
|---|---|
| Appropriation, 1964 | $27,124,000 |
| Estimate | 29,712,000 |
| House allowance | 29,000,000 |
| Restoration requested | 712,000 |

(P. 10, line 10)

Amendment requested:

Page 10, line 10, strike out "$29,000,000" and insert in lieu thereof "$29,712,000", the estimate, or an increase of $712,000 in the appropriation.

HOUSE REPORT

"Increases allowed consist of:

| | |
|---|---|
| New park areas for which funds are not provided | $46,000 |
| New park areas activated since beginning of Mission 66 now partially financed | 300,000 |
| Operation of newly constructed facilities in pre-Mission 66 areas | 554,817 |
| Conversion of park radio systems to narrow band frequencies | 68,000 |
| Commercial power and telephone service connection charges | 100,000 |
| Natural science and wildlife management studies | 100,000 |
| Additional U.S. Park Police | 97,000 |
| Production of additional park informational publications | 75,000 |
| For more adequate fire protection service | 82,000 |
| Employees' compensation fund payments | 52,000 |
| Pay increase annualization | 448,600 |
| Transfers in the estimates | −47,417 |
| Total, net increase | +1,876,000 |

"The amount provided includes $25,000, to be matched by private funds, for the high school student park conservation program."

JUSTIFICATION

The amendment restores the reduction of $712,000 made by the House in the budget estimate for this appropriation. This amount is distributed to activities as follows:

| Activity | Appropriation, 1964 | Budget estimate, 1965 | House allowance, 1965 | Restoration requested |
|---|---|---|---|---|
| 1. Management of park and other areas | $22,165,200 | $24,598,300 | $23,886,300 | $712,000 |
| 2. Forestry and fire control | 1,423,000 | 1,514,700 | 1,514,700 | ---------- |
| 3. Soil and moisture conservation | 203,900 | 205,000 | 205,000 | ---------- |
| 4. Park and recreation programs | 2,826,300 | 2,877,000 | 2,877,000 | ---------- |
| 5. Concessions management | 505,600 | 517,000 | 517,000 | ---------- |
| Total | 27,124,000 | 29,712,000 | 29,000,000 | 712,000 |

A breakdown of the restoration request by objects of expenditure follows:

| | | |
|---|---|---|
| 11 | Personnel compensation | $184,000 |
| 12 | Personnel benefits | 13,000 |
| 23 | Rent, communications, and utilities | 135,000 |
| 24 | Printing and reproduction | 10,000 |
| 25 | Other services | 300,000 |
| 26 | Supplies and materials | 30,000 |
| 31 | Equipment | 40,000 |
| | Total | 712,000 |

1. *Management of park and other areas.*—The net increase in funds of $1,768,517 and 19 positions provided in the bill will allow for:

| | |
|---|---|
| Increased pay costs for fiscal year 1964 positions | $375,700 |
| 2 new park areas for which funds are not now provided | 46,000 |
| A portion of the amount requested for new park areas activated since the beginning of Mission 66 now partially financed | 300,000 |
| A portion of the amount requested for meeting increased visitor use and general park program expansion in pre-Mission 66 areas | 554,817 |
| Conversion of park radio systems to narrow-band frequencies | 68,000 |
| A portion of the amount requested for commercial power and telephone service connection charges | 100,000 |
| A portion of the amount requested for natural science and wildlife management studies | 100,000 |
| 10 additional U.S. Park Police, salaries and expenses | 97,000 |
| Production of additional park informational publications | 75,000 |
| Employees' compensation fund payments | 52,000 |
| Total | 1,768,517 |

Restoration of the $712,000 and 2 positions is requested for the following purposes:

| | |
|---|---|
| Remainder of the amount requested for new park areas activated since beginning of Mission 66 now partially financed | $101,000 |
| Remainder of the amount requested to operate newly constructed facilities and to meet requirements generated by increased visitor use and general park program expansion in pre-Mission 66 areas | 461,000 |
| Remainder of the amount requested for commercial power and telephone service connection charges | 100,000 |
| Remainder of the amount requested for natural science and wildlife management studies | 50,000 |
| Total | 712,000 |

NEW PARK AREAS ACTIVATED SINCE BEGINNING OF MISSION 66 NOW PARTIALLY FINANCED

There are 23 new park areas that have been activated since the beginning of Mission 66 in 1957 for which the budget requested an increase of $401,000 and for which the House allowed $300,000. These areas are currently provided with funds to meet minimum needs only. Requirements for new areas increase from year to year as progress is made in getting operations underway and in providing services and facilities to meet visitor needs. The full amounts requested in the estimate are needed to bring management, protection, and interpretive program levels of the areas involved more nearly in line with those of comparable areas and to meet the workload anticipated to obtain in the 1965 fiscal year. Five of the areas included in this item—Padre Island and Point Reyes National Seashores, Sagamore Hill and Theodore Roosevelt Birthplace National Historic Sites and Whiskeytown Reservoir Area—were included in our request for funds for the first time (new park areas) in the 1964 budget. The 1964 budget request of $288,400 for these five new areas was reduced by congressional action to $150,000, leaving a deficit in the amounts requested for these areas alone of $138,400. It is urged that the full amount of the budget estimate, $401,000, be allowed.

TO OPERATE NEWLY CONSTRUCTED FACILITIES AND TO MEET REQUIREMENTS GENERATED BY INCREASED VISITOR USE AND GENERAL PARK PROGRAM EXPANSION IN PRE-MISSION 66 AREAS

The full amounts requested in the estimate for operating newly constructed Mission 66 facilities and for requirements generated by increased visitor use and general park program expansion in pre-Mission 66 areas totaling $1,015,817 are essential to meet visitor needs and to meet minimum requirements for management, protection, and interpretation of the park areas. The portion of the total request allowed by the House ($554,817) will not permit the operation of new visitor centers, campgrounds, entrance stations, campfire circles, etc., at adequate levels and it will not provide fully for meeting the increase in visitor use workload. These are requirements that must be met if the Service is to fulfill its responsibility for providing visitor services and for protecting park features and facilities. The amount of $461,000 disallowed by the House should be restored in order that the present standard of operation can be maintained.

COMMERCIAL POWER AND TELEPHONE SERVICE CONNECTION CHARGES

In order to obtain commercial electric power and telephone service in some of the isolated park areas, payments must be made to the utility companies to cover all or portions of the cost of extending company lines and making the necessary connections. These payments are usually made in lump sums when the services are commenced. A small increase of $50,000 was provided for the purpose in 1964. An additional $200,000 is needed in 1965. The $100,000 reduction in this item and the $50,000 reduction in the companion item included in the "Maintenance and rehabilitation of physical facilities" appropriation would seriously curtail the programs scheduled for some of the park areas. Electric power and telephone services are necessary for Service and concessioner operations and it is essential that sufficient funds be made available to facilitate initiation and completion of necessary negotiations, some of which are currently underway. It is recommended that the $100,000 be restored for this item. A similar recommendation is made for the companion item under the "Maintenance and rehabilitation" appropriation.

NATURAL SCIENCE AND WILDLIFE MANAGEMENT STUDIES

A planned and coordinated program of natural science and wildlife management studies is urgently needed to provide data essential to the formulation of sound and timely management, policy, planning, and programing decisions required to protect and maintain the integrity of the parks for present and future generations. The budget estimate of $150,000 is considered the very minimum requirement for commencement of the program. The reduction of $50,000 made by the House will make necessary a reduction (1) in the number of cooperative arrangements that can be entered into with other agencies, (2) in the extent and scope of significant study contracts with cooperating colleges and universities, and (3) in the field investigations, analysis and program recommendations to be accomplished with the proposed small permanent staff which is needed for immediate attack on existing situations where there is severe environmental deterioration. The reduction will also eliminate two of the five proposed positions. If the amount is not restored, there will be a substantial and serious reduction in the effectiveness of the program, and incomplete and partial coverage of the environmental situations that are now deteriorating in the park areas.

The budget program is in line with various other efforts that are being made to assure full utilization of manpower and fund resources, particularly from a long-range standpoint. It is urged that the amount of $50,000 which was disallowed by the House be restored to the bill and that the budget request for a small nucleus of five positions be allowed in order that this effective and coordinated study program which is so urgently needed, may be commenced in 1965.

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## NATIONAL PARK SERVICE

### MAINTENANCE AND REHABILITATION OF PHYSICAL FACILITIES

(House hearings, pp. 1030–1041)

(Senate hearings, p. 325)

| | |
|---|---|
| Appropriation, 1964 | $21, 566, 750 |
| Estimate | 23, 500, 000 |
| House allowance | 23, 100, 000 |
| Restoration requested | 400, 000 |

(P. 10, line 19)

Amendment requested:

Page 10, line 19, strike out "$23,100,000" and insert in lieu thereof "$23,-500,000", the estimate, or an increase of $400,000 in the appropriation.

HOUSE REPORT

"The net increase allowed includes $487,000 for pay increase annualization and wage rate increases; $38,000 for new park areas; $210,000 for park areas activated under Mission 66 and now partially financed; $673,504 for more adequate maintenance and operation of facilities in pre-Mission 66 areas; $150,000 for com-

mercial power and telephone service connection charges; and a decrease of $25,254 due to transfers in the estimates."

JUSTIFICATION

The amendment restores the reduction of $400,000 made by the House in the budget estimate for this appropriation. This amount is distributed to activities as follows:

| Activity | Appropriation, 1964 | Budget estimate, 1965 | House allowance, 1965 | Restoration requested |
|---|---|---|---|---|
| 1. Roads and trails | $8,784,000 | $9,500,000 | $9,311,000 | $189,000 |
| 2. Buildings, utilities, and other facilities | 12,782,750 | 14,000,000 | 13,789,000 | 211,000 |
| Total | 21,566,750 | 23,500,000 | 23,100,000 | 403,000 |

A breakdown of the restoration request by objects of expenditure follows:

| | | |
|---|---|---|
| 11 | Personnel compensation | $95,000 |
| 12 | Personnel benefits | 5,000 |
| 23 | Rent, communciations, and utilities | 54,000 |
| 25 | Other services | 206,000 |
| 26 | Supplies and materials | 30,000 |
| 31 | Equipment | 10,000 |
| | Total | 400,000 |

(1) Roads and trails, and (2) buildings, utilities, and other facilities: The increase in funds of $527,000 for roads and trails and $1,031,504 and five new positions for buildings, utilities, and other facilities provided in the bill will allow for:

| | Roads and trails | Buildings, utilities, etc. | Total |
|---|---|---|---|
| Increased pay costs | $24,000 | $33,000 | $57,000 |
| Wage rate increases | 164,000 | 266,000 | 430,000 |
| New park areas for which funds are not now provided | 3,000 | 35,000 | 38,000 |
| A portion of the amount requested for 24 new park areas activated since commencement of Mission 66 now partially financed | 107,000 | 103,000 | 210,000 |
| A portion of the amount requested for more adequate maintenance and operation of facilities existing at commencement of Mission 66 | 229,000 | 444,504 | 673,504 |
| A portion of the amount requested for commercial power and telephone service connection charges | | 150,000 | 150,000 |
| Total | 527,000 | 1,031,504 | 1,558,504 |

Restoration of $189,000 for roads and trails, and $211,000 for buildings, utilities, and other facilities is requested for the following purposes:

| | Roads and trials | Buildings, utilities, etc. | Total |
|---|---|---|---|
| Remainder of the amount requested for 24 new park areas activated since commencement of Mission 66 now partially financed | $68,000 | $20,000 | $88,000 |
| Remainder of the amount requested for maintenance and operation of new and reconstructed facilities in pre-Mission 66 areas and more adequate maintenance and operation of facilities existing at commencement of Mission 66 | 121,000 | 141,000 | 262,000 |
| Remainder of the amount requested for commercial power and telephone service connection charges | | 50,000 | 50,000 |
| Total | 189,000 | 211,000 | 400,000 |

The House reduction of $350,000 in the first two items listed above will, if sustained, make necessary deferring or lowering the standard of maintenance and operating functions in the various park areas.

The 24 new areas authorized since the commencement of Mission 66, for which restoration of $88,000 is requested, are currently provided with amounts to meet minimum needs only. Requirements for new areas increase from year to year as progress is made in getting operations underway and as facilities and services to meet visitor needs are provided. The full amounts requested in the estimate are needed to bring maintenance and operating program requirements of the areas involved more nearly in line with those of comparable areas and to meet the workload anticipated to obtain in the 1965 fiscal year. House action will preclude meeting this need.

The House bill makes inadequate provision for operating and maintaining new and reconstructed facilities which will be completed and placed into operation by or during the 1965 fiscal year in pre-Mission 66 areas. As most of the new or reconstructed facilities will have to be placed into operation and maintained to protect the Government investment the standard of maintenance of other facilities would have to be lowered to provide minimum funds required for the purpose. We urge that the $262,000 disallowed by the House be restored.

In order to obtain commercial electric power and telephone service in some of the isolated park areas, payments must be made to the utility companies to cover all or portions of the cost of extending company lines and making the necessary connections. These payments are made in lump sums when the services are commenced. The $50, 000 reduction in this item (the third item listed in the foregoing) and the $100,000 reduction in the companion item included in the "Management and protection" appropriation request would seriously curtail the programs scheduled for some of the park areas. Electric power and telephone services are necessary for service and concessioner operations and it is essential that sufficient funds be made available to facilitate initiation and completion of necessary negotiations, some of which are currently underway. It is recommended that the $50,000 be restored in the allowance for this item. A similar recommendation is made for the companion item under the "Management and protection" appropriation.

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## NATIONAL PARK SERVICE

### CONSTRUCTION

(House hearings, pp. 1041–1073, 1107, 1109–1115, and 1117) (Senate hearings, p. 333)

| | |
|---|---|
| Appropriation 1964 | $32, 697, 000 |
| Estimate | 25, 406, 000 |
| House allowance | 23, 800, 000 |
| Restoration requested | 1, 250, 000 |

(P. 11, lines 5, 7, 8, and 9)

Amendments requested:

(1) Page 11, line 5, strike out "$23,800,000" and insert in lieu thereof "$25,050,000", an increase of $1,250,000 in the appropriation.

(2) Page 11, lines 7, 8, and 9, strike out the following: *Provided*, That no part of this appropriation shall be used for condemnation of any land for Grand Teton National Park in the State of Wyoming

HOUSE REPORT

"The amount provided by activity consists of the following:

| | |
|---|---|
| Camping and picnicking facilities | $2, 202, 500 |
| Public service and administrative units | 8, 782, 500 |
| Utilities | 8, 859, 100 |
| Employee housing | 2, 172, 300 |
| Miscellaneous | 2, 587, 800 |
| Acquisition of water rights | 480, 000 |
| Reduction due to anticipated slippage in construction program | −1, 250, 000 |
| Deletion of fallout shelter at Rocky Mountain National Park and rounding | −34, 200 |
| Total | 23, 800, 000 |

"The amount allowed includes $845,000 to initiate the construction of visitor and related facilities at Glacier Bay National Monument, Alaska, representing the first phase of the budgeted plan. The committee has deferred the balance of the request, $321,800, representing the construction items that will not be required until fiscal year 1966.

"As there was an unobligated balance of $33.5 million under this appropriation as of January 31, 1964, it is believed that the reduction of $1,250,000 will be absorbed readily through anticipated slippage in the construction program.

"It should be noted that funds heretofore appropriated under this item for acquisition of national park lands have been deleted from the 1965 budget which proposes that such requirements hereafter be financed from the land and water conservation fund assuming favorable action by Congress on H.R. 3846. The committee has approved, within available funds, the retention of existing land acquisition personnel under this appropriation item pending congressional action on the bill."

JUSTIFICATION

*Explanation of amendment (1).*—The amendment restores the reduction of $1,250,000 made by the House in the budget estimate to cover anticipated slippage in the construction program. This amount is distributed to activities as follows:

| Activity | Appropriation, 1964 | Budget estimate, 1965 | House allowance, 1965 | Restoration requested |
|---|---|---|---|---|
| (a) Buildings, utilities, and other facilities | $26,532,000 | $24,926,000 | $23,320,000 | $1,250,000 |
| (b) Acquisition of— | | | | |
| (1) Lands | 5,300,000 | | | |
| (2) Water rights | 365,000 | 480,000 | 480,000 | |
| (c) Roads and trails | 500,000 | | | |
| Total | 32,697,000 | 25,406,000 | 23,800,000 | 1,250,000 |

A breakdown of the restoration request by objects of expenditure follows:

32 Lands and structures ..... $1,250,000

*Slippage, $1,250,000*

It is conceded that a program involving more than 400 projects will experience yearend slippage for various reasons, among them being rejection of excessive bids, or unanticipated activities of other agencies, such as State road construction, which necessitates revision of park plans. To obtain maximum value it is frequently necessary to reject contract bids for projects and readvertise in hopes of more favorable bids. The deferred projects are seldom dropped from the construction programs as their need continues to exist. Congressional action on the 1964 appropriation contemplated slippage in projects having a value of $1,400,000. Specific projects were not identified. These projects must be carried forward to be accomplished during the 1965 or future fiscal years. A reduction of $1,250,000 under the 1965 budget estimate for additional project slippage would result in a cumulative total of $2,650,000 involving an estimated 40 to 50 unfinanced projects. This significant amount would make the program difficult of administration, and lead to misunderstanding or confusion of those interested in the projects, because of rescheduling of prior year projects in some future year programs.

During the past 8 years, a net of 27 additional park areas have been authorized or established, presenting an additional imposing construction workload. The amount of $23,800,000 proposed by the House bill represents a reduction of more than 20 percent under the amounts appropriated for this construction activity during the 1962 and 1963 fiscal years. It is respectfully recommended that $1,250,000 be restored to the bill to assist in meeting development needs in the newer units of an expanding park system, and to provide in part for needs of more visitors, the numbers of which have exceeded all expectations.

*Explanation of amendment (2).*—The amendment deletes the restriction on condemnation of any land for Grand Teton National Park in the State of Wyoming.

The language of the proviso is at variance with the basic purpose for which national parks are established.

The Grand Teton National Park was established under the act of September 14, 1950 (64 Stat. 849), to "be administered in accordance with the general statutes governing national parks." The park purpose is defined in the act of August

25, 1916 (39 Stat. 535), as being "to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."

This conservation objective is very difficult to attain while land within the park is held in private ownership because management as a unit is impracticable under the circumstances. There are no means at the disposal of the United States to prevent irreparable damage to park values from such activities as mining, the cutting of timber, or the construction of unsightly developments on private lands. Charged with the responsibility of administering national parks in accordance with the basic purpose of the act, the Department of the Interior pursues a policy under which all lands within national parks may eventually be brought into Federal ownership.

In furtherance of this policy with respect to national parks, the Department proposes to acquire private land in Grand Teton National Park as it becomes available. The Grand Teton National Park, established in accordnace with the act of September 14, 1950, contains a gross acreage of 310,350 acres. All but 7,896 acres are now owned by the United States.

The continuation of the prohibition against condemnation may operate to preclude the undertaking of development of construction in any area where private land must be acquired to permit a proposed installation to be undertaken or completed. If the prohibitory language is continued, the Service may be faced with paying an exorbitant amount for land if an uncooperative owere is encountered, and the Service will be without the further benefit of condemnation to acquire title immediately if title infirmities are present.

For the foregoing reasons, it is strongly recommended that the restriction be removed from the 1965 appropriation bill.

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## NATIONAL PARK SERVICE

### General Administrative Expenses

(House hearings, pp. 1096–1105)

(Senate hearings, p. 374)

| | |
|---|---|
| Appropriation, 1964 | $2,136,750 |
| Estimate | 2,412,000 |
| House allowance | 2,325,000 |
| Restoration requested | 87,000 |

(P. 12, lines 7 and 8)

Amendments requested:

(1) Page 12, line 7, strike out "$2,325,000" and insert in lieu thereof "$2,412,000", the estimate, or an increase of $87,000 in the appropriation.

(2) Page 12, line 8, strike out "$115,000" and insert in lieu thereof "$125,000", an increase of $10,000 in the limitation of the amount for travel and transportation of persons.

HOUSE REPORT

"The increase allowed includes: $17,000 to strengthen financial management functions in the Washington office; $42,650 to intensify management analysis and statistical functions in the Washington office; $60,000 to provide management analysis staffs in the regional offices; and $68,600 for pay increase annualization."

JUSTIFICATION

*Explanation of amendment (1).*—The amendment restores the reduction of $87,000 made by the House in the budget estimate for this appropriation. This amount is distributed to activities as follows:

| Activity | Appropriation, 1964 | Budget estimate, 1965 | House allowance, 1965 | Restoration requested |
|---|---|---|---|---|
| (a) Departmental expenses | $1,304,350 | $1,457,000 | $1,410,000 | $47,000 |
| (b) Regional office expenses | 832,400 | 955,000 | 915,000 | 40,000 |
| Total | 2,136,750 | 2,412,000 | 2,325,000 | 87,000 |

A breakdown of the restoration request by objects of expenditure follows:

| | | |
|---|---|---|
| 11 | Personnel compensation | $67,000 |
| 12 | Personnel benefits | 4,000 |
| 21 | Travel and transportation of persons | 10,000 |
| 23 | Rent, communications, and utilities | 1,000 |
| 25 | Other services | 1,000 |
| 26 | Supplies and materials | 1,000 |
| 31 | Equipment | 3,000 |
| | Total | 87,000 |

(*a*) Departmental expenses and (*b*) regional office expenses. The increase in funds of $188,250 and 10 positions provided in the bill will allow for:

| | |
|---|---|
| Increased pay costs for fiscal year 1964 positions | $68,600 |
| Strengthening the financial management functions in the Washington office | 17,000 |
| A portion of the increase requested to intensify management analysis and statistical functions in the Washington office | 42,650 |
| A portion of the increase requested to provide management analysis staffs in the regional offices | 60,000 |
| Total | 188,250 |

Restoration of the $87,000 and 10 positions is required to accomplish the work proposed by this amendment, for the following:

| | |
|---|---|
| Remainder of the amount requested to intensify management analysis and statistical functions in the Washington office | $12,000 |
| Remainder of the amount requested to provide management analysis staffs in the regional offices | 40,000 |
| To strengthen training functions in the Washington office | 15,000 |
| To increase the effectiveness of the Service's trust fund program | 20,000 |
| Total | 87,000 |

MANAGEMENT ANALYSIS AND STATISTICAL FUNCTIONS IN THE WASHINGTON OFFICE

House action in reducing the request for additional management analysis personnel in the Washington office will make necessary the elimination of one professional position and a secretarial position from the proposed staff. The professional position is needed to help develop and provide statistical data upon which to base planning, programing, budgeting, and management decisions. The provision of adequate statistical data for planning, programing, budgeting, and day-to-day management purposes is an essential requirement for full manpower and fund utilization, particularly from a long-range viewpoint. The secretarial position is needed to serve the above position and to relieve the existing staff of the more routine duties. The entire request for this item, as well as the companion one for the regional offices, is in line with both administration and congressional directives dealing with manpower and fund utilization. It is respectfully requested that the reduction made by the House be restored.

MANAGEMENT ANALYSIS STAFFS IN THE REGIONAL OFFICES

The House allowance will provide for five professional positions, without secretarial help, for management analysis work in five of the regional offices. Management analysis is an extremely important function and one which must receive increased emphasis in the interest of efficiency and economy and good manpower utilization. Provision for a management analysis officer and a secretary in each of the regional offices is considered a minimal requirement to meet management needs. Restoration of funds to provide or the secretarial positions is urgently requested.

TRAINING FUNCTIONS

The full amount of this request was disallowed by the House. An additional training position is vitally needed to assist the training officer. The passage of the Government Employees Training Act of 1958 has generated considerable additional workload for the training officer. He has not been able to set up guidelines for a formal program or to do other things which would make use of the provisions of the Training Act more effective and productive. These things

include an intensive and continuing study of training needs which could be met through use of outside facilities, reports on these needs, and establishing criteria for the selection of employees to receive the benefits of training in outside facilities. The additional position is essential to provide more adequate leadership and assistance in supervisory training, instructor training, orientation, safety training, etc., which are vital for the improvement of the career service and for more effective use and development of manpower. It is presently impossible for the training officer to plan and execute an adequate training program for a bureau of the size and complexity of the National Park Service. The pressures on the training officer are mounting steadily, and there are many demands on his time which simply cannot be met without the addition of an assistant training officer position, funds for which were deleted by the House. It is requested that the amount in question be restored to meet this need.

TRUST FUND PROGRAM

The House allowance makes no provision for the requested staff of two positions needed to implement and carry forward a more effective and active trust fund program. Two primary trust funds have been authorized by the Congress for the benefit of the national parks. The first grants broad authority to the National Park Service to accept donations including land, property, and money for national park purposes. The second created the National Park Trust Fund Board and authorizes the acceptance of gifts to be invested as in a foundation or endowment fund. Substantial donations have been received to date in both funds; however, there is ample opportunity to enlarge the scope and effectiveness of the trust fund program if full-time attention can be devoted to it. Heretofore, no individual has had this function as a primary responsibility with the result that the program has lacked continuity and has succeeded only to the extent that the Director and others have taken time from their other responsibilities to devote to it.

Substantial financial benefits will accrue to the Service by establishing the positions of trust fund officer and a clerk-stenographer. The Service would then be in a position to develop and program a comprehensive portfolio of necessary and suitable projects having appeal to potentially large and small donors. The trust fund officer would follow through and give leadership, continuity, and full-time thought and energy to the routine aspects of such an enterprise. He would also work closely with the Director and the Secretary of the Interior in enlarging the scope of the trust fund programs and activities for national park purposes. Restoration of funds for this purpose is urgently requested.

*Explanation of amendment (2).*—If the funds and positions herein recommended for restoration are allowed, it is urged that the amount of the travel limitation be increased from $115,000 to $125,000 to permit required field work of the positions included in the estimate.

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## NATIONAL PARK SERVICE

### Administrative Provisions

(House hearings, pp. 1105–1106)

(Senate hearings, p. 380)

(P. 12, lines 11 and 12)

Amendment requested:

Page 12, lines 11 and 12, strike out: "ninety-four passenger motor vehicles" and insert in lieu thereof "one hundred and eighteen passenger motor vehicles of which ninety-four shall be".

HOUSE REPORT

The House report made no statement concerning this item.

JUSTIFICATION

House action on the bill eliminated the 24 additional vehicles proposed in the budget.

The increases proposed in the budget are for the following purposes:

| | |
|---|---|
| U.S. Park Police | 1 |
| Areas activated since the beginning of Mission 66 | 8 |
| Pre-Mission 66 areas | 15 |
| Total | 24 |

Lack of authorization for acquisition of additional passenger motor vehicles will preclude the provision of (1) an additional police patrol vehicle for the new U.S. Park Police positions included in the estimate; (2) adequate vehicles for 5 of the areas activated since the beginning of Mission 66 for which 8 additional vehicles are requested primarily for the additional permanent positions which will be provided with the increases requested in the estimates; and (3) adequate patrol and general transportation in 8 of the pre-Mission 66 areas for which 15 additional vehicles are requested to more nearly meet the needs of existing ranger, naturalist, historian, and administrative personnel. The additional vehicles will make possible better utilization of manpower. The positions for which the 24 additional vehicles are requested are provided for in the House allowance, and fulfillment of the Service's responsibilities for managing, operating, protecting, interpreting, and maintaining these parks will be impeded if the additional passenger motor vehicles are not provided.

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## OFFICE OF TERRITORIES

### Administration of Territories

(House hearings, pp. 1306–1347, 1396–1435)

(Senate hearings, p. 540)

| | |
|---|---|
| Appropriation, 1964 | $13,000,000 |
| Estimate, 1965 | 18,814,000 |
| Estimate (supplemental), 1964 | 11,464,000 |
| House allowance, 1965 | 15,300,000 |
| House allowance supplemental, 1964 | 10,000,000 |
| Restoration requested, 1965 | 1,000,000 |
| Restoration requested (supplemental), 1964 | 1,464,000 |

(P. 13, line 17 and p. 14, line 4)

Amendments requested:

(1) Page 13, line 17 strike out "$15,300,000" and insert in lieu thereof *"$16,300,000"*—an increase of $1 million in the appropriation.

(2) Page 14, line 4 strike out "$10,000,000" and insert in lieu thereof *"$11,464,000"*—the estimate or an increase of $1,464,000 in the appropriation.

#### HOUSE REPORT

"This item makes provision for the expenses of the Office of Territories and for support of the governments of the Virgin Islands, Guam, American Samoa, and Administration of Canton Island.

"Of the amount allowed, $5,537,000 is for support of American Samoa, a decrease of $2,500,000 in the budget estimate. The committee has approved the budgeted construction program as submitted but believes that the amount allowed will be sufficient to meet obligations in fiscal year 1965 as there is at present an unobligated balance of $12.1 million, and further slippage in the program is anticipated.

"The amount allowed also includes $9 million of the $10 million requested for fiscal year 1965 to carry out the provisions of the Guam Rehabilitation Act, approved November 4, 1963, which authorized loans and grants up to $45 million for the rehabilitation of the territory of Guam. The loans and grants will be used to replace public facilities destroyed by the severe typhoon in 1962 and also to replace other obsolete temporary facilities constructed in World War II. Water power and telephone projects will be financed from loans repayable in full with interest. All other projects are to be financed 50 percent from loans and 50 percent from grants. The committee has also approved $10 million of the 1964 supplemental request of $11,464,000 to initiate the rehabilitation program. The total provided, $19 million, is believed all that can be efficiently and effectively obligated by June 30, 1965, and, therefore, the committee has imposed the total reduction of $2,464,000 in the estimates based on anticipated slippage in the construction estimate."

JUSTIFICATION

*Explanation of amendments.*—Amendment (1) restores $1 million of the total reduction of $3,514,000 made by the House in the 1965 budget estimate for this appropriation; amendment (2) restores the entire reduction of $1,464,000 made by the House against the budget estimate for 1964 (supplemental). These amounts are distributed to activities as follows:

*Estimate, 1965*

| Activity | Appropriation, 1964 | Budget estimate, 1965 | House allowance, 1965 | Restoration requested |
|---|---|---|---|---|
| 1. Virgin Islands: | | | | |
| (a) Governor's office | $90,000 | $92,000 | $88,000 | |
| (b) Legislative expense | 13,000 | 13,000 | 13,000 | |
| (c) Comptroller's office | 179,000 | 185,000 | 185,000 | |
| 2. Guam: | | | | |
| (a) Governor's office | 83,000 | 84,000 | 81,000 | |
| (b) Legislative expense | 24,000 | 24,000 | 24,000 | |
| (c) Loans | | 6,539,000 | 6,039,000 | $500,000 |
| (d) Grants | | 3,461,000 | 2,961,000 | 500,000 |
| 3. American Samoa: | | | | |
| (a) Governor's office | 161,000 | 168,489 | 168,489 | |
| (b) Legislative expense | 35,000 | 30,600 | 30,600 | |
| (c) Chief justice and high court | 78,000 | 89,100 | 89,100 | |
| (d) Grants | 12,002,000 | 7,748,811 | 5,248,811 | |
| 4. Canton Island administration | 21,000 | 22,000 | 17,000 | |
| 5. General administration | 314,000 | 357,000 | 355,000 | |
| Total | 13,000,000 | 18,814,000 | 15,300,000 | 1,000,000 |

A breakdown of the restoration request by objects of expenditure follows:

| | | |
|---|---|---|
| 33 | Investments and loans | $500,000 |
| 41 | Grants, subsidies, and contributions | 500,000 |
| | Total | 1,000,000 |

*Estimate, 1964 (supplemental)*

| Activity | Appropriation, 1964 | Supplemental estimate, 1964 | House allowance, 1964 | Restoration requested |
|---|---|---|---|---|
| Guam: | | | | |
| (a) Loans | | $5,877,100 | $5,145,100 | $732,000 |
| (b) Grants | | 5,586,900 | 4,854,900 | 732,000 |
| Total | | 11,464,000 | 10,000,000 | 1,464,000 |

A breakdown of the restoration request by objects of expenditure follows:

| | | |
|---|---|---|
| 33 | Investments and loans | $732,000 |
| 41 | Grants, subsidies, and contributions | 732,000 |
| | Total | 1,464,000 |

We request restoration of the $1 million deleted from the $10 million estimated for fiscal year 1965; and, in addition, the $1,464,000 deleted from the $11,464,000 supplemental estimate for fiscal year 1964. The committee's reason for deleting these sums from the requests were apparently not based on disapproval of any of the projects listed in the budget request but were based on the committee's belief that of the total $21,464,000 requested in the 2 fiscal years under review, only $19 million could be efficiently and effectivley obligated by June 30, 1965. The Governor assures us that all funds can be effectively and efficiently obligated by the end of fiscal year 1965, very likely by January 1965. The Government of Guam has entered into an agreement with the Navy in Guam for the contract administration of nearly all the projects included in the estimates. A strict time schedule developed by the Navy for such contract administration has been agreed upon. We concur with the government of Guam that the funds requested can be obligated within the time frame under consideration.

## GEOLOGICAL SURVEY

### SURVEYS, INVESTIGATIONS, AND RESEARCH

(House hearings, pp. 681–758)

(Senate hearings, p. 423)

| | |
|---|---|
| Appropriation, 1964 | $63,700,000 |
| Estimate | 68,623,000 |
| House allowance | 65,930,000 |
| Restoration requested | 2,693,000 |

(P. 18, line 1)

Amendment requested:

Page 18, line 1, strike out "$65,930,000" and insert in lieu thereof "$68,623,000", an increase of $2,693,000 in the appropriation.

HOUSE REPORT

"The amount allowed by activities as compared with the 1964 appropriation and the estimate for 1965 is as follows:

| Activity | Committee bill, 1965 | Bill compared with— | |
|---|---|---|---|
| | | 1964 appropriation | Estimate, 1965 |
| Topographic surveys and mapping | $21,480,000 | −$160,000 | −$434,000 |
| Geologic and mineral resource surveys and mapping | 16,510,000 | +250,000 | −708,000 |
| Marine geology and hydrology | 748,000 | +250,000 | −205,000 |
| Water resources investigations | 19,743,000 | +1,036,000 | −346,000 |
| Soil and moisture conservation | 193,000 | | |
| Conservation of lands and minerals | 4,465,000 | +64,000 | |
| General administration | 1,801,000 | | |
| Special-purpose buildings | | −200,000 | −1,000,000 |
| Increased Pay Act costs | 990,000 | +990,000 | |
| Total, Geological Survey | 65,930,000 | +2,230,000 | −2,693,000 |

"The net increase allowed includes $140,000 to resume work on the National Atlas; $500,000 for accelerated studies of the earth's crust and upper mantle; $500,000 for expansion of primary networks for studies of the surface and groundwater resources of the Nation; and $502,000, the full budget request, to match anticipated increase in State offerings for cooperative investigations of surface and ground waters.

"The committee has disallowed the proposed appropriation of $1 million for construction of a nuclear research laboratory at Denver, Colo. As facilities are available for the conduct under contract of essential research of this nature at the present time, the committee believes, in the interest of economy, that this large capital expenditure should not be undertaken in the coming fiscal year. The committee also reiterates its request of last year that the laboratory expansion program of the agency be referred to the legislative committee for appropriate review and approval."

JUSTIFICATION

The amendment restores the reduction of $2,693,000 made by the House in the budget estimate. This amount is distributed to activities as follows:

| Activity | Appropriation, 1964 | Budget estimate, 1965 | House allowance, 1965 | Restoration requested |
|---|---|---|---|---|
| (1) Topographic surveys and mapping | $21,640,000 | $21,914,000 | $21,480,000 | $434,000 |
| (2) Geologic and mineral resource surveys and mapping | 16,260,000 | 17,218,000 | 16,510,000 | 708,000 |
| (3) Marine geology and hydrology | 498,000 | 953,000 | 748,000 | 205,000 |
| (4) Water resources investigations | 18,707,000 | 20,089,000 | 19,743,000 | 346,000 |
| (5) Soil and moisture conservation | 193,000 | 193,000 | 193,000 | |
| (6) Conservation of lands and minerals | 4,401,000 | 4,465,000 | 4,465,000 | |
| (7) General administration | 1,801,000 | 1,801,000 | 1,801,000 | |
| (8) Special-purpose buildings | 200,000 | 1,000,000 | | 1,000,000 |
| Increased pay act costs | | 990,000 | 990,000 | |
| Total | 63,700,000 | 68,623,000 | 65,930,000 | 2,693,000 |

A breakdown of the restoration request by objects of expenditure follows:

| | | |
|---|---|---|
| 11 | Personnel compensation | $520,000 |
| 12 | Personnel benefits | 35,000 |
| 21 | Travel and transportation of persons | 127,000 |
| 22 | Transportation of things | 45,000 |
| 23 | Rent, communications, and utilities | 70,000 |
| 24 | Printing and reproduction | 53,000 |
| 25 | Other services | 345,000 |
| | Services of other agencies | 30,000 |
| 26 | Supplies and materials | 115,000 |
| 31 | Equipment | 353,000 |
| | Total Geological Survey | 1,693,000 |
| Allocation account: | | |
| 21 | Travel and transportation of persons | 1,000 |
| 24 | Printing and reproduction | 12,000 |
| 25 | Other services | 32,000 |
| 32 | Lands and structures | 955,000 |
| | Total allocation to General Services Administration | 1,000,000 |
| | Grand total | 2,693,000 |

TOPOGRAPHIC SURVEYS AND MAPPING

The overall decrease of $434,000 in the requested amount of funds for topographic surveys and mapping for fiscal year 1965 will result in a decrease in standard quadrangle mapping, map printing services, and in the planned rate of progress on the National Atlas.

The program of the Geological Survey in topographic surveys and mapping results from carefully made plans based on high-priority requests from map users on a nationwide basis. In keeping with the economy program of the President the amount requested for 1965 would satisfy only a small fraction of the national needs. It was considered a minimum amount. Any reduction would deny the country a basic service needed for the development of the Nation's natural resources and economy.

Topographic quadrangle maps are not only needed by many Government agencies and the general public but the Department of Defense now more fully relies on the Geological Survey for such maps of domestic areas in accord with a recent agreement. This agreement saves the Department of Defense an estimated $1 million a year. If the Geological Survey cannot furnish the printed maps as needed, the Army Map Service would have to resume the preparation of some military editions of domestic maps, and some of the effected savings would be lost.

A delay of the National Atlas, for which only $140,000 of the requested $346,000 was allowed by the House, would deny the country a document whose immediate need was confirmed through a recent market survey of potential government educational, and commercial users, and reaffirmed many times.

GEOLOGIC AND MINERAL RESOURCE SURVEYS AND MAPPING

The increase of $250,000, together with another $250,000 reassigned from other projects—as provided in the bill approved by the House—will permit about half of the expansion planned to meet the needs of the upper mantle project. The amount cut ($708,000) from the funds requested for geologic and mineral resource surveys and mapping should be restored not only to meet the minimum requirements for the Geological Survey to fulfill its appropriate and recommended initial part of the upper mantle project, but also to enable the Survey to (1) accelerate critical appraisals of the mineral and fuel resources of the United States, and (2) expand much needed engineering geologic studies in fast-growing urban and industrial areas as well as work on the application of geophysical methods to engineering construction and related land-use problems.

The funds disallowed for the upper mantle project ($458,000) must be restored if the Survey is to make the contribution recommended by the Geophysics Research Board of the National Academy of Sciences. Specifically the decrease excludes the possibility of any participation in some critical parts of this program, such as phase equilibria and geothermal measurements that depend upon the

drilling of holes in new and critical areas, and it cuts essentially in half the number of geophysical observations that the Geological Survey can make in support of the upper mantle project.

In addition, in regional geology the reduction will result in our being unable to begin the program of 1:250,000-scale mapping in the Southeastern United States, a fundamental section of the transcontinental strip—a narrow strip that is the principal target for geophysical investigations related to the upper mantle program.

With no increase in funds allowed for appraisal of mineral and fuel resources ($125,000 requested), research planned to improve methods of reserve appraisal must be sharply curtailed, and essential State and regional resource compilations and energy reports that have been requested by Members of Congress and various investigating groups will be possible only by recessing or discontinuing other important resource studies.

The funds disallowed for engineering geology ($125,000) would have permitted (1) undertaking important new engineering geologic studies in rapidly growing urban areas, such as in Charleston, S.C., and Phoenix, Ariz., where work was originally planned to be started early in fiscal year 1965, and (2) continuation and expansion of a program aimed at applying geophysical methods to measuring the bulk engineering properties of rocks that are important in major urban construction programs.

MARINE GEOLOGY AND HYDROLOGY

The $250,000 increase provided for marine geology and hydrology in the bill approved by the House Appropriations Subcommittee will permit modest expansion of the Survey's cooperative program on the Atlantic continental slope and shelf with the Woods Hole Oceanographic Institution, and support for the planned Willapa Bay, Wash., project.

The decrease of $205,000 in the requested increase for marine geology and hydrology will require (1) postponement of the proposed studies of San Francisco Bay, (2) an appreciable decrease in the effort which can be made in the initial operations of the joint Geological Survey-Coast and Geodetic Survey program to study conditions and resources of the Pacific continental shelf and slope, (3) a reduction in the scale of work at Willapa Bay, Wash., and (4) reduced support of interagency activities, including a one-half reduction in the amount planned for support of the National Oceanographic Data Center.

WATER RESOURCES INVESTIGATIONS

The increase of $1,036,000 provided in the bill for water resources investigations will allow a minimal strengthening of the primary network of streamflow stations and the nationwide network of ground water observation wells and will provide funds to match the anticipated increases in State offerings for the surface water and ground water subactivities of the cooperative program.

Restoration of $346,000 is required to accomplish the work proposed by this amendment.

As a result of huge increases in the demand for water a multitude of water problems urgently requiring solution will continue to arise. It is clear that we must continue to find out more and more about the water resources of our Nation and at a rate far exceeding that of any past year. Current plans to carry out comprehensive river basin planning and to accelerate water development call for accelerating our efforts to obtain adequate basic information about water as a resource. Water facts are basic and indispensible to efficient water development. How much water is available? How is it distributed? How does it vary with time? What is its quality? How do man's activities affect the water supply? These fundamental questions call for the collection and analysis of enormous quantities of water data and the preparation of basic description of this vital resource.

The Geological Survey's long-range plan calls for obtaining basic facts about water resources and monitoring these resources to provide a continuing appraisal of them as extensively and intensively as the need for information requires. The rate of accumulation of water facts has lagged with respect to the need for them. Work for which restoration of funds is requested will help to alleviate a few of the major deficiencies. This work is briefly described in the following paragraphs:

(1) *Collection and compilation of streamflow data.*—The Geological Survey recently conducted a 2-day conference with representatives of more than 20 Federal agencies that depend largely on the Survey for basic data on water. There was near-unanimous agreement on the need for expansion of data coverage. Streamflow information is especially needed for small watersheds or basins. It is estimated that 3,400 stations should be added to the present network. Addi-

tionally, many stations now in operation are critically in need of rehabilitation and upgrading, for example, the Grand Canyon and Lees Ferry stations on the Colorado River.

(2) *Description of ground-water systems.*—To date, only about 1 million square miles, or a little more than 30 percent of the United States, has been covered by ground-water studies. Descriptions that show the areal extent and thickness of water-bearing aquifers, the physical characteristics that control the rate, direction, and quantity of water movement, and changes that take place are urgently needed in many areas of the country. At the present rate of ground water development, the need for ground water information far exceeds the rate of acquiring this information. Essential to this task is expansion of the nationwide network of observation wells to continuously assess the impact of burgeoning ground water development.

(3) *Bench mark network.*—Only about 15 percent of this network needed to distinguish natural variations in water supply from those caused by man will be in operation by the end of fiscal year 1964.

(4) *Basinwide water resources studies.*—National needs in comprehensive river basin planning efforts, as evidenced in pending legislation, require that the Survey expand its efforts on studies which will provide an appraisal of the hydrologic systems and that provide information to enable an evaluation of the effect of proposed water developments on the resource and on the environment. It is this knowledge of the hydrologic systems that is the Geological Survey's most significant contribution to river basin planning.

SPECIAL PURPOSE BUILDINGS

Restoration of $1 million for construction of the special purpose Nuclear Research Laboratory in Denver is requested.

Following the request last year by the House Committee on Appropriations that the proposal for construction of a nuclear building be first reviewed and approved by the legislative committee, a letter was sent to Chairman Aspinall of the House Interior Committee, by the Director of the Geological Survey, briefly describing the Survey's programs and the need for additional facilities, and offering any additional information that might assist in answering any question the committee had on laboratory needs. In addition, the problem was taken up with the committee staff. The Survey proposes to again review the proposal with the chairman of the House Interior Committee.

Problems in geology and hydrology that are both unique to the work of the Geological Survey and are an integral part of its operations, require a wide variety of geophysical and geochemical tools for effective solution. The nuclear techniques proposed for use in a new facility at Denver do not duplicate the work of other national laboratories and reactors or at universities. None of these laboratories in the United States is interested in or equipped to cope with the problems of handling the Geological Survey's enormous load of upward of 40,000 chemical analyses of earth materials and water coming from field and laboratory studies, or to develop and apply new tools to explore for additional supplies of water and minerals to meet our future needs. The analytical load especially is expected to increase as problems develop in the national resources field.

The Geological Survey has and will continue to take advantage of the advances made in the larger national laboratories and reactors. We have found that some of the nuclear tools and techniques that they have developed, such as activation analysis methods for the identification of substances, can be modified and applied to the solution of our water and mineral problems.

Tracers are coming into use as a tool to follow the course and behavior of chemicals which enter in increasing quantities into hydrologic systems, and to facilitate determination of dilution and rate of travel in water of materials that could have serious impact on municipal supplies. The use of activatable tracers in field studies not only will not cause public objections such as are stimulated by the use of radioactive isotopes, but will allow the study of long-term processes.

Similarly, such new tools as the beryllometer, which utilizes a radioactive source to selectively activate beryllium bearing minerals, and thus permit not only recognition of potential ore minerals of this element in the field, but also quantitative appraisal of their abundance, may be expected to significantly improve exploration techniques.

The Nuclear Research Laboratory will provide the necessary specialized facilities for work in hydrology and geology. In addition, it will provide critically needed safer working conditions for the men and women who are currently engaged in intensive studies with radioactive materials at the Denver field center; this work is rapidly approaching the safety limits of the existing facilities.

## BUREAU OF MINES

### CONSERVATION AND DEVELOPMENT OF MINERAL RESOURCES

(House hearings, pp. 571–631, 673–680)

(Senate hearings, p. 482)

| | |
|---|---|
| Appropriation, 1964 | $29,404,000 |
| Estimate | 30,346,000 |
| House allowance | 30,100,000 |
| Restoration requested | 246,000 |

(P. 19, lines 8 and 9)

Amendment requested:

(1) Page 19, line 8, strike out "$30,100,000," and insert in lieu thereof "$30,346,000," an increase of $246,000 in the appropriation.

(2) Page 19, lines 8 and 9, strike out "including not to exceed $700,000 for travel and transportation of persons."

#### HOUSE REPORT

"The increases allowed include $208,000 to provide for research on drainage of methane during mining and $75,000 for increased marine minerals research. The latter amount, together with the $53,000 currently available, will provide a total of $128,000 which the committee expects will be utilized only for the development of technology for mining minerals from the ocean floor. In approving this increase the committee wishes to make it abundantly clear that it does not approve the planned program of the Bureau with a possible duration of 10 years at a cost of $7,500,000. The committee sees no need for the Bureau to engage in ocean surveys, resource evaluations, identification of sea-floor deposits or other oceanographic functions now being performed by the many other Federal and private agencies engaged in oceanographic research. Instead the committee will expect the Bureau's program to be held in the future to the modest level approved for the next fiscal year and that the work will be strictly confined to the development of the technology for mining marine minerals."

#### JUSTIFICATION

*Explanation of amendment (1).*—The amendment restores the reduction of $246,000 made by the House in the budget estimate. This amount is distributed by activities as follows:

| Activity | Appropriation, 1964 | Budget estimate, 1965 | House allowance, 1965 | Restoration requested |
|---|---|---|---|---|
| 1. Bituminous coal | $7,957,000 | $8,165,000 | $8,165,000 | |
| 2. Anthracite coal | 1,059,000 | 824,000 | 824,000 | |
| 3. Petroleum, natural gas and oil shale | 3,862,000 | 4,057,000 | 3,862,000 | $195,000 |
| 4. Minerals and metals | 15,952,000 | 15,917,000 | 15,917,000 | |
| 5. Oceanographic research | 53,000 | 179,000 | 128,000 | 51,000 |
| 6. Foreign mineral activities | 521,000 | 521,000 | 521,000 | |
| Increased Pay Act cost | | 683,000 | 683,000 | |
| Total | 29,404,000 | 30,346,000 | 30,100,000 | 246,000 |

A breakdown of the restoration by objects of expenditure follows:

| | | |
|---|---|---|
| 11 | Personnel compensation | $89,000 |
| 12 | Personnel benefits | 7,000 |
| 21 | Travel and transportation of persons | 10,000 |
| 22 | Transportation of things | 4,000 |
| 13 | Rent, communications, and utilities | 2,000 |
| 24 | Printing and reproduction | 1,000 |
| 25 | Other services | 87,000 |
| 26 | Supplies and materials | 14,000 |
| 31 | Equipment | 22,000 |
| 32 | Lands and structures | 10,000 |
| | Total | 246,000 |

*Petroleum, natural gas and oil shale.*—Restoration of the House reduction of $195,000 is requested to enable the Bureau to develop effective means of oil shale retorting technology.

The economic production of large volumes of shale oil from oil shale in future years as a supplement to domestic crude oil supplies will be dependent on the ability to produce shale oil by in situ methods, since much of this vast, undeveloped resource is covered by 1,000 feet and more of useless overburden. To mine this oil shale at such depths would be expensive by ordinary mining methods. Costs would be lower if shale oil could be produced by retorting the oil shale in place.

The Bureau of Mines needs to explore the possibilities of in situ production on a modest scale in order to be able to advise Congress and the rest of the Federal Government as to the feasibilities of the proposal, and to determine the possible recoveries of oil from the shale reserves. Such information would be of direct benefit, too, to smaller companies interested in competing in the future shale oil industry. The proposed studies also would delineate more clearly the recoverable oil reserves in oil shales.

*Oceanographic research.*—The house reduction of $51,000 in the marine minerals minerals research program for fiscal year 1965 from the requested $179,000 to $128,000 will seriously hamper the Bureau from its long-range goal of adding minerals from the seas to supplement diminishing dryland sources. Achievement of this goal will require not only a careful study of the practicability of adapting current mining and processing methods for marine mineral extraction, but the formulation and possible demonstration of entirely new concepts for recovery of minerals from the seas. The proposed budget reduction will severely restrict these areas of research.

The requirement that research be limited "only for the development of technology for minimg minerals from the ocean floor," is technically overrestrictive, since the problem of marine mineral recovery will vary greatly with the type of mineral to be mined, the extent and grade of the deposit, whether it is composed of unconsolidated sediments or hard rock, the distance from the underwater occurrence to land, the depth of water in which it lies, and other factors. The technology for mining can be developed only after identification of the above items.

*Explanation of amendment (2).*—The amendment deletes the restrictive limitation placed by the House on funds to be used for travel and transportation of persons. The increase indicated in the estimate for 1965 is due to the methane drainage research program, research on in situ retorting of oil shale and expansion of the marine minerals program. These programs would be basically accomplished by fieldwork parties detached from various field headquarters.

Personal communication, visual inspection, and the exchange of scientific techniques are the primary bases for travel of research personnel and are foremost factors in determing the success of scientific research and forestalling duplication of effort. The limitation on travel is disruptive to the performance of the research functions coming within the assigned responsibilities since no allowance is made for the sometimes necessary unplanned travel required to carry out the Bureau's functions.

Further, when specific object class limitations are placed on the use of funds, it is necessary to establish special controls which are both cumbersome and costly.

Inasmuch as the Bureau has placed increased emphasis on efficient and effective use of funds for travel and transportation of persons, it is felt that the limitation is undully restrictive, unnecessary, and should be eliminated.

The Bureau hopes that the restrictive language will be removed. In case that it is not, then it is requested that the limitation be increased from $700,000 to $725,000 to permit the Bureau to carry out its programs in the most feasible and efficient manner.

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## BUREAU OF MINES

### HEALTH AND SAFETY

(House hearings, pp. 631–651, 675–676)

(Senate hearings, p. 518)

| | |
|---|---|
| Appropriation, 1964 | $8,664,000 |
| Estimate | 9,511,000 |
| House allowance | 9,300,000 |
| Restoration requested | 185,000 |

(P. 19, line 13)

Amendment requested:

Page 19, line 13, strike out "$9,300,000" and insert in lieu thereof "$9,485,000", an increase of $185,000 in the appropriation.

HOUSE REPORT

"The net increase allowed includes: $102,000 for expansion of the safety educational program; $185,000 for expansion of fine-coal float-dust explosion research; $150,000 for expansion of mine ventilation research and investigations; $91,000 for expansion of methane detection and monitoring research; and $208,000 for pay increase annualization. The committee has disallowed the proposed increase of $185,000 to rehabilitate and modernize the second experimental mine at Bruceton, Pa.

JUSTIFICATION

The amendment restores $185,000 of the $211,000 reduction made by the House in the budget estimate. This amount is distributed by activities as follows:

| Activity | Appropriation, 1964 | Budget estimate, 1965 | House allowance, 1965 | Restoration requested |
|---|---|---|---|---|
| 1. Inspections, investigations, and rescue work | $6,672,000 | $6,700,000 | $6,674,000 | ---------- |
| 2. Control of fires in coal deposits | 396,000 | 396,000 | 396,000 | ---------- |
| 3. Health and safety research | 1,596,000 | 2,207,000 | 2,022,000 | $185,000 |
| Increased Pay Act cost | ---------- | 208,000 | 208,000 | ---------- |
| Total | 8,664,000 | 9,511,000 | 9,300,000 | 185,000 |

A breakdown of the restoration request by objects of expenditures follows:

| | | |
|---|---|---|
| 25 | Other services | $86,000 |
| 26 | Supplies and materials | 54,000 |
| 31 | Equipment | 45,000 |
| | Total | $185,000 |

The committee disallowed $185,000 of a requested increase of $370,000 for fine-coal float-dust explosion research. In commenting on the reduction, the committee stated that it "disallowed the proposed increase of $185,000 to rehabilitate and modernize the second experimental mine at Bruceton, Pa."

We would like to explain that these funds are intended solely to provide the experimental mine with modern scientific and engineering equipment necessary to carry out the programs specifically authorized. The experimental mine is in reality a laboratory and, like all scientific and engineering laboratories in which experiments are performed and measurements made, the usability of the results obtained and return on the investment made in the research work, is dependent to a large extent on the reliability of the laboratory measuring or testing devices. This is especially true in fire and explosion and other hazardous research because the experiments are performed by remote control and human observation cannot be employed safely to verify instrument readings and equipment results. A portion of the funds would be used to provide grinding and crushing equipment to prepare pulverized coal samples of appropriate fineness and quality to simulate the significantly different coal dusts being produced by the newer, more rapid, mining methods.

The equipment and instrumentation desired would be chosen for immediate use in connection with the research programs authorized for 1965, but would be equally valuable for future programs involving safety in coal mining. The equipment and instrumentation will be an integral part of the float-coal-dust study. If restoration of the $185,000 is not allowed, much of the funds already allowed will have to be consumed in providing and installing the necessary equipment. This would result in a corresponding delay in completing the work, and it would mean the very significant hazard we are trying to eliminate will continue to plague us that much longer.

## BUREAU OF MINES

### General Administrative Expenses

(House hearings, pp. 656–659)

(Senate hearings, p. 530)

(P. 19, lines 17 and 18)

Amendment requested:
Page 19, lines 17 and 18, strike out the following: ", including not to exceed $54,000 for travel and transportation of persons".

#### HOUSE REPORT

The House report made no statement concerning this item.

#### JUSTIFICATION

The amendment removes the language which limits the amount that may be expended for travel and transportation of persons.
Since the Bureau of Mines has already and is continuing to emphasize the effective use and control of travel funds, it is felt that this restriction is unnecessary and will be expensive to administer.

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## OFFICE OF COAL RESEARCH

### Salaries and Expenses

(House hearings, p. 549–567)

(Senate hearings, p. 647)

| | |
|---|---|
| Appropriations 1964 | $5,075,000 |
| Estimate | 6,836,000 |
| House allowance | 6,336,000 |
| Restoration requested | 500,000 |

(P. 21, line 6)

Amendment requested:
Page 21, line 6, strike out "$6,336,000" and insert in lieu thereof "$6,836,000", the estimate, or an increase of $500,000 in the appropriation.

#### HOUSE REPORT

"This appropriation provides for contract research to develop new methods of mining, preparing, and utilizing coal. The amount allowed includes $6 million for new contract research and $336,000 for administration and contract supervision. As the Office had an unobligated balance of over $2 million as of February 28, 1964, and many of the project obligations scheduled for 1965 are dependent upon successful test results during the current year and 1965, it is believed that the recommended reduction of $500,000 will be readily experienced through slippage in the program."

#### JUSTIFICATION

The amendment restores the reduction of $500,000 made by the House in the budget estimate. This amount is distributed in the following activities:

| Activity | Appropriations, 1964 | Budget estimate, 1965 | House allowance, 1965 | Restoration requested |
|---|---|---|---|---|
| 1. Administration and contract supervision | $325,000 | $336,000 | $336,000 | |
| 2. Contract research | 4,750,000 | 6,500,000 | 6,000,000 | $500,000 |
| Total | 5,075,000 | 6,836,000 | 6,336,000 | 500,000 |

A breakdown of the restoration by objects of expenditures follows:

| | | |
|---|---|---|
| 25 | Other services | $500,000 |

CONTRACT RESEARCH

Restoration of $500,000 is vital to the accomplishments of the contract research work proposed by this amendment. It involves all of the new research effort which the Office of Coal Research proposes to undertake on new contracts in fiscal year 1965. The statement which appears in the House report indicates that the House allowance "includes $6 million for new contract research." This is a misconception. The $500,000 which the House has eliminated is proposed for new contract research. The $6 million will be used for continued funding in the next fiscal year on projects already in existence, or which will be signed by the end of fiscal year 1964.

OCR at the present time is estimating to undertake only five new contract research projects in fiscal year 1965 with the $500,000. In the event we fail to receive this money, we shall be unable to undertake any new research.

It is OCR's present estimate that all of the funds which are being requested, will be necessary for the continuation of the program at the level, and at the pace, at which technical progress indicates it should proceed in the next fiscal year.

OCR believes that a corollary effect from failure to appropriate the additional $500,000, will be to cause the interest of outstanding research organizations to wane, and almost certainly to dry up the sources of continuing good proposals for research which should be undertaken.

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## FISH AND WILDLIFE SERVICE

### Bureau of Commercial Fisheries

MANAGEMENT AND INVESTIGATIONS OF RESOURCES

(House hearings, pp. 379–429)

(Senate hearings, p. 707)

| | |
|---|---|
| Appropriation, 1964 | $17,832,900 |
| Supplemental estimate, 1964 | 100,000 |
| Estimate, 1965 | 20,631,000 |
| House allowance: | |
| Supplemental estimate, 1964 | ---------- |
| Direct appropriation | 17,832,900 |
| Transfer from receipts | 2,125,000 |
| Total | 19,957,900 |
| Restoration requested | 503,100 |

(P. 22, line 22)

Amendment requested:

Page 22, line 22, strike out "$17,832,900" and insert in lieu thereof "$18,336,000" or an increase of $503,100 in the appropriation.

HOUSE REPORT

"The increases allowed under marketing and technology include: $71,500 for increased operating costs; $65,000 for exploratory fishing and gear research projects; $35,000 for technological research on pesticides; and $190,000 to provide for the botulism research program. In addition, the committee has approved, within available funds, an additional amount of $50,000 for consumer education in connection with this latter program.

"The net increase recommended under research includes $704,800 for operation and maintenance of new facilities; $244,000 for North and Central Pacific oceanography; $156,000 for North Atlantic and Gulf of Mexico oceanography; $66,500 for the cooperative oceanographic programs; $275,000 to provide for biological research on pesticides; and $100,000 for radiobiological and shellfish studies. The committee has also approved within available funds $15,000 for exploratory commercial fisheries studies off the coast of North Carolina. The reduction of $270,000 imposed in the budget estimate for biological research on pesticides, including the 1964 supplemental estimate of $100,000, is necessary to limit the program to the annual monetary authorization.

"In lieu of financing the 1965 increase of $2,125,000 by the appropriation of general funds from the Treasury, the committee has provided the increase by

transfer from the Pribilof Islands fund which has an unappropriated balance of $6,278,000. This fund is derived from receipts of sales of fur seal skins and other wildlife products of the Pribilof Islands."

JUSTIFICATION

The amendment restores the reduction of $503,100 made by the House in the budget estimate for the appropriation. This amount is distributed as follows:

| Activity | Appropriation, 1964 | Budget estimate, 1965 | House allowance, 1965 | Restoration requested |
|---|---|---|---|---|
| 1. Management | $393,600 | $390,734 | $390,734 | |
| 2. Marketing and technology | 4,099,000 | 4,532,500 | 4,457,500 | $75,000 |
| 3. Research | 9,711,900 | 11,769,300 | 11,171,200 | 428,100 |
| 4. Research on fish migration over dams | 1,496,700 | 1,396,700 | 1,396,700 | |
| 5. Fishing vessel mortgage insurance | 41,800 | 41,800 | 41,800 | |
| 6. Columbia River fishery facilities | 2,089,900 | 2,249,900 | 2,249,900 | |
| 1965 Pay Act costs | | 250,066 | 250,066 | |
| Total | 17,832,900 | 20,631,000 | 19,957,900 | 503,100 |

A breakdown of the restoration request by objects of expenditure follows:

| | | |
|---|---|---|
| 25 | Other services | $503,100 |
| | Total | 503,100 |

2. *Marketing and technology.*—The increase in funds of $361,500 provided in the bill will allow $41,500 for operation and maintenance of new facilities; $30,000 for increased costs for postage, communication services, mimeograph paper, and other supplies, and replacement of old processing equipment associated with the fishery market news service; $65,000 for exploratory fishing and gear research programs; $35,000 for technological research on pesticides; and $190,000 for research on clostridium botulinum type E. In addition, the committee has approved, within available funds, an additional amount of $50,000 for consumer education in connection with the last program.

Restoration of $75,000 is requested for this activity. No increase in the number of positions over that authorized for fiscal year 1964 will be required.

The sum of $75,000 is needed to undertake exploratory fishing investigations off the Pacific coast of the State of Alaska and for gear development for locating pelagic species of fish. The very important shrimp and king crab fisheries of Alaska cannot be expanded because there are now no known new fishing grounds available to the industry. The tremendous increase in shrimp and king crab production during the last few years has resulted in maximum utilization of previously discovered grounds much sooner than anticipated. The limited amount of exploratory work which has been carried out, in addition to locating many of the presently utilized king crab and shrimp grounds, has indicated there are additional grounds which could support a much larger industry than now exists. Initial explorations off Alaska would be concentrated in the offshore waters between Price William Sound and Kodiak Island where it is believed that considerable unutilized quantities of these shellfish exist.

3. *Research.*—The increase in funds of $1,462,100 over the 1964 appropriation, or $1,562,100 considering a nonrecurring item for oyster brood stock research in 1964, provided in the bill will allow $704,800 for operation and maintenance of new facilities; $251,900 for North and Central Pacific oceanography; $156,000 for North Atlantic and Gulf of Mexico oceanography; $66,500 for cooperative oceanographic programs; $275,000 for biological research on pesticides; $100,000 for radiobiological and shellfish studies; and $7,900 for payment to employees compensaation fund. In addition, the committee has approved, within available funds, an amount of $15,000 for exploratory commercial fisheries studies off the coast of North Carolina.

Restoration of $428,100 is requested for this activity. No increase in the number of positions over that authorized for fiscal year 1964 will be required.

The sum of $298,100 is needed for oceanographic research programs in the North and Central Pacific. The requested increase will provide for Bureau participation in a new cooperative oceanographic investigation of the eastern tropical Pacific that has been recommended by the Eastern Pacific Oceanic Council (EPOC), for a joint study with the State of California on the bluefin

tuna resources of the eastern Pacific, and for expanded studies of tuna behavior which are designed to increase the efficiency of the American fisherman. Additional funding is required for research on the basic physiology of fishes and for investigations of sardine spawning and the survival of larval sardines in relation to oceanographic factors.

In the Central Pacific, funds are required for planning, preliminary testing and calibration of instruments, and for initial cruises of a cooperative study of the Pacific trade wind zone. Data will be collected that will be of great interest to both meteorologists and oceanographers and will enable the fishery scientists to better understand the interrelations of fish and the environment and to improve their predictions of fish abundance.

Protection of the salmon runs of the North Pacific Ocean continues to be one of our more critical fishery problems. We must improve our ability to predict the size of the runs and determine the numbers of North American salmon taken annually by the intensive Japanese high seas fishery. Our interests in the valuable halibut, king crab, and shrimp stocks of the eastern Bering Sea and Gulf of Alaska require a substantial increase in our research efforts to define the size and distribution of these stocks and to appraise the effects of the growing foreign fisheries.

Increases in funds are needed to extend our knowledge of the growth and survival of salmon to the critical estuarine period of their life history in Bristol Bay, Prince William Sound, and southeastern Alaska both to identify the causes of annual fluctuations in the survival of young salmon and to improve the accuracy of the predictions of adult returns to the fisheries.

King crab tagging programs must be stepped up in the Kodiak and Shumagin Island areas where stocks are under greatest pressure from increasing exploitation by foreign fisheries in competition with the rapid expansion of our domestic fishery.

The United States has an international obligation as a signator of the International Convention for the Regulation of Whaling and as a member of the International Whaling Commission, to "encourage, recommend, and if necessary organize studies and investigations relating to whales and whaling." This international obligation cannot be met without increasing our research effort. A study of the seasonal occurrence and relative abundance of whales within reach of U.S. whaling stations on the Pacific coast is required by those engaged in planning commercial whaling. The world catch of whales is about 65,000 a year valued at $140 million. Over 60 percent are caught in Antarctic waters. The Antarctic stocks have been dangerously depleted through overkilling and if Northern Hemisphere stocks are to be saved new regulations based on new scientific studies must be drafted. A comprehensive whale-marking program is scheduled to begin in 1965 to determine the size, distribution, and biological facts of North Pacific whale stocks; this is essential data for establishing conservation regulations.

The erratic fluctuations of the salmon fisheries—the unpredicted overabundance or the disastrous failures of salmon runs have plagued fishermen, industry, and management agencies along the Pacific coast. An understanding of ocean mortality becomes of utmost importance in the prediction of the size of the returning salmon runs. This understanding will be further developed by additional studies in 1965 which will evaluate a new tagging technique using a coded wire tag, and apparatus and specialized physiological assistance to study causes and extent of salmon death from conventional tagging.

The sum of $130,000 is needed for North Atlantic and Gulf of Mexico oceanographic research programs. It is necessary that studies be intensified to determine the effects of increased foreign fishing on the New England fish stocks. Additional funding requested will permit the Bureau, utilizing the new research vessel *Albatross IV*, to expand to a more productive level programs such as physical oceanography and plankton studies. Such programs are now being financed at a minimal level.

Increased funding is required for programs at the Ichthyological Laboratory, Washington, D.C., and at the Biological Laboratory, Brunswick, Ga., on taxonomy and life history studies of fishes and invertebrates. The National Academy of Sciences Committee on Oceanography has singled out taxonomy as one of the fields of oceanography in urgent need of additional support.

## BUREAU OF COMMERCIAL FISHERIES

### General Administrative Expenses

(House hearings, pp. 453–457)

(Senate hearings, p. 777)

| | |
|---|---|
| Appropriation, 1964 | $653,000 |
| Estimate | 676,000 |
| House allowance | 667,000 |
| Restoration requested | 9,000 |

(P. 23, line 20)

Amendment requested:

Page 23, line 20, strike out "$667,000" and insert in lieu thereof "$676,000", the estimate, or an increase of $9,000 in the appropriation.

#### HOUSE REPORT

"The net increase allowed includes reduction of $39,000 due to nonrecurring costs, an increase of $23,000 for pay increase annualization, and $30,000 for purchase of additional accounting equipment."

#### JUSTIFICATION

The amendment restores the reduction of $9,000 made by the House in the budget estimate for the appropriation. This amount is distributed as follows:

| Activity | Appropriation, 1964 | Budget estimate, 1965 | House allowance, 1965 | Restoration requested |
|---|---|---|---|---|
| 1. Departmental expenses | $291,900 | $298,000 | $289,000 | $9,000 |
| 2. Regional office expenses | 361,100 | 378,000 | 378,000 | |
| Total | 653,000 | 676,000 | 667,000 | 9,000 |

A breakdown of the restoration request by objects of expenditure follows:

| | | |
|---|---|---|
| 21 | Travel and transportation of persons | $5,000 |
| 23 | Rents, communications, and utilities | 2,000 |
| 25 | Other services | 1,000 |
| 26 | Supplies and materials | 1,000 |
| | Total | 9,000 |

1. *Departmental expenses.*—The $289,000 provided in the bill represents an increase of $10,100, considering a nonrecurring item of $13,000, or an appropriation decrease of $2,900. The $10,100 is for increased pay costs for positions approved for 1964 which are to be continued in 1965. Restoration of $9,000 is required for this activity.

The $9,000 is needed to cover the additional cost of providing essential executive direction and administrative services required for the most effective conduct of the expanded Bureau program planned for fiscal year 1965. The expanded program will require additional travel by the Bureau directorate and key administrative personnel, and will involve additional costs for communication expenses, supplies and materials, and other services.

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## FISH AND WILDLIFE SERVICE

### Administrative Provisions

(House hearings, pp. 366–367)

(Senate hearings, p. 906)

(P. 25, lines 13 and 14)

Amendment requested:

Page 25, lines 13 and 14, strike out "one hundred and twenty-four passenger motor vehicles" and insert in lieu thereof "one hundred and twenty-nine passenger motor vehicles, of which one hundred and twenty-four shall be".

HOUSE REPORT

The House report made no statement concerning this item.

JUSTIFICATION

Authority for the Fish and Wildlife Service to purchase 129 passenger motor vehicles, of which 124 would be for replacement only, would permit the Bureau of Commercial Fisheries to purchase the 5 additional vehicles needed. The additional vehicles are required for use by field personnel engaged in the expanded pesticides research programs to be conducted by the Bureau of Commercial Fisheries in the fiscal year 1965.

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## OFFICE OF SALINE WATER

### SALARIES AND EXPENSES

(House hearings, pp. 482–519)

(Senate hearings, p. 1125)

| | |
|---|---|
| Appropriation, 1964 | $10,000,000 |
| Estimate | 10,650,000 |
| House allowance | 10,000,000 |
| Restoration requested | 650,000 |

(P. 26, line 18)

Amendments requested:

(1) Page 26, line 18, strike out "$10,000,000" and insert in lieu thereof "$10,650,000", the estimate or an increase of $650,000 in the appropriation.

(2) Page 26, line 18, strike out "$703,000" and insert in lieu thereof "$820,000".

HOUSE REPORT

"The amount allowed includes $9,297,000 for continuation of basic and applied research to develop low-cost processes for converting saline water to fresh water and $703,000 for administration and coordination, the same as 1964 except for pay increase annualization. Considering that the Office had an unobligated balance of $6.6 million as of December 31, 1963, and has research contracts in effect or in process with a total value of $16.5 million, the committee believes the allowance of $10 million should provide adequate additional research funds for fiscal year 1965."

JUSTIFICATION

*Explanation of amendment (1)*

The amendment restores the reduction of $650,000 made by the House in the budget estimate. This amount is distributed to activities as follows:

| Activity | Appropriation, 1964 | Budget estimate, 1965 | House allowance, 1965 | Restoration requested |
|---|---|---|---|---|
| 1. Administration and coordination | $690,000 | $820,000 | $703,000 | $117,000 |
| 2. (a) Contracts and grants (non-Federal) | 9,010,000 | 9,630,000 | 9,097,000 | 533,000 |
| (b) Federal laboratories | 300,000 | 200,000 | 200,000 | |
| Total | 10,000,000 | 10,650,000 | 10,000,000 | 650,000 |

The restoration is distributed by objects of expenditures as follows:

| | | |
|---|---|---|
| 11 | Personnel compensation | $100,000 |
| 12 | Personnel benefits | 7,500 |
| 21 | Travel and transportation of persons | 10,000 |
| 23 | Rent, communications, and utilities | 2,000 |
| 24 | Printing and reproduction | 2,000 |
| 25 | Other services | 450,000 |
| 26 | Supplies and materials | 1,800 |
| 31 | Equipment | 1,700 |
| 41 | Grants, subsidies, and contributions | 75,000 |
| | Total | 650,000 |

*Activity 1.—Administration and coordination of contracted research and development*

*Increase in program.*—The increase in funds of $13,000 provided in the bill will allow only for pay increase annualization.

*Program appeal.*—Restoration of $117,000 and 10 man-years are required to effectively accomplish the work proposed by this amendment taking into consideration the fact that the research and development contracts in effect increased by $4 million in the calendar year 1963 and is expected to increase further as new basic concepts and processes are studied and contracts or grants executed.

The coordination of this contracted research and development program requires that each individual scientist and engineer responsible for research contracts must have the professional capability to analyze and evaluate research and development proposals, must participate in the planning and direction of any proposed research and development project, must negotiate the technical portions of the contract, and administer and evaluate the technical work performed to insure worthwhile results, and finally, he must plan future work under succeeding contracts that will best achieve the long- and short-range goals.

Experience of other contract programs has demonstrated that an average number of five contracts per project leader is the maximum if the fullest benefit is to be achieved. Under the restricted personnel ceiling limitation, the current assignment per project leader ranges from 8 to 11 contracts and will gradually increase under the accelerated program. This will reduce the amount of technical supervision given each contract, handicap the fulfillment of the role of the Office of Saline Water as the recognized world center for saline water conversion and possibly reduce the fullest realization of direct results and benefits. The final technical evaluation and publication of the results obtained from each contract will also be affected by the same conditions.

*Activity 2—Contracts and grants*

*Decrease in program.*—The amount provided in the bill decreases by $13,000 the 1965 funds for research and development contracts. The total value of research and development contracts being administered at December 31, 1962, was $8,676,000 and at January 31, 1964, was $12,676,300, an increase of over 50 percent. During this 13-month period the total number of contracts in effect has increased from 86 to 91 and it is estimated that the average number of contracts in effect in 1965 will again increase by approximately 2 percent.

*Program appeal.*—Restoration of the $533,000 is requested to accomplish the work proposed by this amendment. The results of work already undertaken and the advances made in the technology have illustrated the value of an accelerated rate of research contracting to insure early development of more effective and economical methods of water conversion. The estimate of $10,650,000 represents the amount which can effectively and economically carry out the directive of the Congress.

The current budget estimate is predicated on a continuation of a schedule for contracting water conversion research. Based on this program schedule the full amount of the estimate, $9,830,000, will finance an effective and efficient program of research and development contracts and grants.

*Explanation of amendment (2)*

The amendment increases the limitation on the amount available for administration and coordination from $703,000 to $820,000. The request for restoration of $117,000 will make possible much needed staff additions as follows:

| | |
|---|---|
| Scientific and technical engineering staff | 3 |
| Contract and general administrative staff | 3 |
| Stenographic and clerical assistance | 4 |
| Total | 10 |

The need for additional technical personnel has been pointed out in the foregoing statements, but this personnel must be supported by an adequate administrative, stenographic, and clerical staff. Without the requested increases the current rate of work productivity cannot be indefinitely sustained.

The workload growth has created a specific need for support personnel to improve accounting controls, perform property management functions, and to supply administrative and clerical assistance to the scientists and engineers so that they are relieved of day-to-day housekeeping chores and can more effectively devote their time to program accomplishment.

## OFFICE OF SALINE WATER

### CONSTRUCTION, OPERATION, AND MAINTENANCE

(House hearings, pp. 482–519)

(Senate hearings, p. 1153)

| | |
|---|---|
| Appropriation, 1964 | $1,850,000 |
| Estimate | 2,300,000 |
| House allowance | 2,250,000 |
| Restoration requested | 50,000 |

(P. 27, lines 1 and 2)

Amendments requested:

(1) Page 27, line 1, strike out "$2,250,000" and insert in lieu thereof "$2,300,000", the estimate or an increase of $50,000 in the appropriation.

(2) Page 27, line 2, strike out "$230,000" and insert lieu thereof "$250,000".

#### HOUSE REPORT

The amount allowed includes $910,000 for operation and maintenance of the saline water demonstration plants at Freeport, Tex., Webster, S. Dak., and Roswell, N. Mex.; $360,000 for process changes and improvements; $230,000 for administration; and $750,000 for replacement of the demonstration plant at San Diego, Calif., which is being transferred to the naval base at Guantanamo, Cuba. This latter amount, together with available unobligated balances and a reimbursement from the Department of Defense, will provide a total of $2,500,000, the estimated cost of the replacement facility.

#### JUSTIFICATION

*Explanation of amendment (1)*

The amendment restores the reduction of $50,000 made by the House in the budget estimate. This amount is distributed to activities as follows:

| Activity | Appropriation, 1964 | Budget estimate, 1965 | House allowance, 1965 | Restoration requested |
|---|---|---|---|---|
| Demonstration plants | $1,850,000 | $2,300,000 | $2,250,000 | $50,000 |

The restoration is distributed by object of expenditures as follows:

| | | |
|---|---|---|
| 11 | Personnel compensation | $19,000 |
| 12 | Personnel benefits | 1,000 |
| 22 | Transportation of things | 1,000 |
| 23 | Rent, communications, and utilities | 4,000 |
| 25 | Other services | 23,000 |
| 26 | Supplies and materials | 2,000 |
| | Total | 50,000 |

*Increase in program.*—The increase in funds of $400,000 recognizes the changing requirements of the program but does not adequately provide for the interim custodial operating costs of the San Diego plant or the necessary need for personnel to plan, engineer, and supervise the replacement.

*Program appeal.*—The transfer of the San Diego plant to the Department of the Navy and the approval for the replacement have occurred since the presentation of the budget estimate to the Appropriation Committee. The transfer of this plant does not relieve the Office of Saline Water of its housekeeping, maintenance, and custodial responsibilities for the remaining facilities which are not being transferred. Located immediately adjacent to the ocean, the equipment requires special maintenance to protect if from salt spray. In addition to this function there will be engineering work required to accomplish the replacement.

The construction of the new plant will require the preparation and design of plans and specifications, and the reviewing and evaluation of bids for architect and engineering services and construction. On-site supervision of the construction will be required during the year to build and activate the new facility.

The present staff of the Demonstration Plants Division is not adequate to carry out its assigned responsibilities which include: supervising the operation and maintenance of existing plants; the development of design changes, improvements, and alterations; performing engineering feasibility studies on new plants; and to adequately carry out the necessary duties required in the replacement of the San Diego plant.

*Explanation of amendment (2)*

The amendment increases the limitation on the amount available for administration from $230,000 to $250,000. The request for restoration of $20,000 is justified under amendment No. 1.

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## OFFICE OF THE SECRETARY

### SALARIES AND EXPENSES

(House hearings, pp. 1272–1290)

(Senate hearings, p. 1070)

| | |
|---|---|
| Appropriation, 1964 | $3,858,400 |
| Estimate | 4,125,000 |
| House allowance | 4,065,000 |
| Restoration requested | 60,000 |

(P. 27, line 18)

Amendment requested:

Page 27, line 18, strike out "$4,065,000" and insert in lieu thereof "$4,125,000", the estimate or an increase of $60,000.

#### HOUSE REPORT

"The increase allowed includes $82,000 for pay increase annualization; $16,000 for the Undersecretary; $12,475 for the Assistant Secretary for Mineral Resources; $42,500 for the Office of Survey and Review; $28,000 for the Office of Management Operations; $14,000 for the Division of Management Research; and $15,000 for equipment replacement."

#### JUSTIFICATION

The amendment restores the reduction of $60,000 made by the House in the budget estimate. This amount is distributed to the following activities:

| Activity | Appropriation, 1964 | Budget estimate, 1965 | House allowance, 1965 | Restoration requested |
|---|---|---|---|---|
| 1. Departmental direction | $590,400 | $616,300 | $616,300 | |
| 2. Program direction and coordination | 1,357,900 | 1,407,600 | 1,393,100 | $14,500 |
| 3. Administrative management services | 1,780,400 | 1,954,000 | 1,908,500 | 45,500 |
| 4. General services | 129,700 | 147,100 | 147,100 | |
| Total | 3,858,400 | 4,125,000 | 4,065,000 | 60,000 |

A breakdown of the restoration by objects of expenditures follows:

| | | |
|---|---|---|
| 11 | Personnel compensation | $56,000 |
| 12 | Personnel benefits | 3,400 |
| 21 | Travel and transportation of persons | 600 |
| | Total | 60,000 |

*Program direction and coordination, $14,500*

Restoration of $14,500 is requested for the Office of the Assistant Secretary for Water and Power for an engineering position which is particularly needed for conducting engineering and economic studies to demonstrate that the power generated by the project can be sold at rates which will insure repayment, within 50 years, with interest, of all costs allocated to power. Public Law 88–253, 88th Congress, H.R. 8667, December 30, 1963, specifically added this proviso for the Ohio River Basin studies in authorizing additional appropriations for the prosecu-

tion of comprehensive plans for certain river basins. These studies are directly related to marketing activities which the Department may have in the development of water and power resources in areas, primarily outside the areas presently served by the four power marketing agencies. No increase in total positions is necessary for this, but because of within-grade promotions and some changes in organization in this area funds are insufficient to fill all positions authorized.

*Administrative management services, $45,500*

Restoration of $36,500 is requested for the Office of Survey and Review. Exclusive of Pay Reform Act costs, the Office of Survey and Review sought an increase of $79,000 of which the House committee allowed $42,500. It is emphasized that this increase does not represent a growth trend in this part of the Department's organization. On the contrary, it represents merely the amount needed to finance the original plan for the Office which was established near the end of fiscal year 1963 after congressional action on the 1964 appropriation request. While it was possible to get the important functions of this Office underway with funds made available through other economies in fiscal year 1964, funds essential to provide even minimal staff for all the initial responsibilities of the Office were not available. Approval of the full amount of the increase requested, $79,000, or an increase of $36,500 above the House allowance is urgently needed to permit completion of staffing in audit and analysis and methods (including ADP) and to provide adequate clerical complement. In connection with audit and analysis work, the Department is undertaking to develop Department-wide audit management at the secretariat level responsive as far as practicable with those fundamentals of internal audit operation enunciated by the Committee on Government Operations. Such action is novel in the Department and requires skilled employees to coordinate and direct the efforts of Bureau audit staffs and to perform special inquiries where justified. In the methods area the Department is exercising more positive leadership in sensible computer adoption with emphasis upon multibureau use of costly equipment investment. The Office of Survey and Review is the key element in the Department's revised approach to audit and methods. As such, it is also the key to manpower and fund savings consistent with current trends toward economy and efficiency.

Restoration of $9,000 is requested for the Division of Management Research.

The increases requested for the Division of Management Research were to strengthen its programs in productivity measurement relating manpower requirements to workload, and in work improvement and work simplification.

With the administration's and Department's increasing emphasis on economy and efficiency through improving productivity and manpower utilization, restoration of the $9,000 cut in personal services designed to strengthen these programs would be an investment that should provide both immediate and long-range returns throughout the Department.

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## Department of Agriculture

### FOREST SERVICE

March 18, 1964.

Hon. Carl Hayden,
*Chairman, Committee on Appropriations,*
*U.S. Senate.*

Dear Senator Hayden: Enclosed are statements in support of the amendments which we request be made in the Forest Service portion of the Department of the Interior and related agencies appropriation bill as reported by the House committee March 13, 1964.

We urge the following House committee reductions be restored:

| | |
|---|---|
| Forest protection and utilization | $1,383,000 |
| Forest land management: | |
| (*a*) Reforestation and stand improvement | 100,000 |
| (*b*) Recreation, public use | 700,000 |
| (*c*) Structural improvements for fire and general purposes | 23,000 |
| (*d*) Insect and disease control (other pest control) | 500,000 |
| Forest research: (*a*) Planning funds for research station | 60,000 |

The 1965 budget request for the Forest Service was considerably below the financing needed to fully implement the development program for the national forests. The House reductions are particularly serious since our revised estimates were already reduced to the bare minimum needed to do an effective job of protecting and managing the national forest resources.

The Forest Service put to effective use the accelerated public works funds made available in distressed areas to alleviate unemployment. To use this program as a basis for the curtailment of regular programs would defeat the purpose for which the APW legislation was enacted. The "offset" principle applied by the House committee not only defeats the purpose of the accelerated public works program, but the reduction in the regular Forest Service appropriations below normal program levels tends to create even more adverse economic conditions in the distressed areas—the areas where the problems of unemployment still remain to be solved.

This action is not considered compatible with the President's poverty program, which recognizes a continuing need for these very programs which funds are now being denied. We strongly urge restoration of the cuts made by the House on the APW "offset" basis.

The House reduction of the insect detection and evaluation project is particularly serious. Improvement in survey coverage is essential to proper control and resultant cost reductions. Restoration of this item and related permanent positions is urgently requested.

Representatives of the Department will be glad to furnish any additional information you may need or to appear before your committee as necessary to further discuss the 1965 budget estimates of the Forest Service.

Sincerely yours,

JOSEPH M. ROBERTSON,
*Administrative Assistant Secretary.*

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## FOREST SERVICE

### FOREST PROTECTION AND UTILIZATION

#### FOREST LAND MANAGEMENT

(House hearings, pp. 1121–1167)

(Senate hearings, pp. 916–975)

| | |
|---|---|
| 1964 appropriation | $147,312,000 |
| 1965 budget estimate | 149,919,000 |
| House bill | 148,596,000 |
| Restoration requested | 1,323,000 |

#### AMENDMENT REQUESTED

Page 30, line 15, strike out "$148,596,000" and insert "$149,919,000" to restore the budget estimate.

#### HOUSE REPORT NO. 1237 (P. 21)

"The committee believes that the reductions recommended in the requests for reforestation and stand improvement and for recreation-public use can be readily absorbed as $7 million and $10,500,000, respectively, have been available for these activities from accelerated public works funds. The reduction made in 'recreation-public use' has been made in construction funds.

"The committee has disallowed the request under structural improvements to plan and design a combined regional office and research station headquarters in Pennsylvania. Considering the high proposed construction cost of this facility, the committee believes that there should be more opportunity to study the need for the project before planning is initiated.

"The reduction of $500,000 in the request for the insect and disease control program has been made in the proposed allocation for the detection and evaluation activity. The $1,195,000 allowed for this purpose, an increase of $171,000 over the current year, should be adequate for fiscal year 1965."

#### JUSTIFICATION OF THE AMENDMENT BY THE DEPARTMENT

The amendment proposed by the Department would restore the following reductions made in the House bill: (*a*) $100,000 for reforestation and timber

stand improvement; (*b*) $700,000 for recreation-public use; (*c*) $23,000 for structural improvements for fire and general purposes; and (*d*) $500,000 for insect and disease control.

(*a*) The Department recommends that the reduction of $100,000 for reforestation and timber stand improvement made by the House be restored. A reduction of $100,000 would necessitate a cutback of 1,500 acres in the reforestation program. This activity uses large amounts of unskilled labor and is concentrated largely in depressed areas where the unemployment problem already is critical. Deceleration of the planting program will further delay restoration of timber productivity.

In order to keep pace with the reforestation needs as expressed in the development program for the national forests it would be necessary for the Forest Service to plant 380,000 acres each year during the 10-year period (1963–72). The current rate of progress will fall way short of this goal because of the limited funds made available for this purpose. If this trend continues, our planned objective will not be reached until the year 1991.

(*b*) The Department recommends that the reduction of $700,000 for recreation-public use made by the House be restored. The House action will result in a setback in the gradual progress being made in alleviating the overcrowded conditions of developed camp and picnic sites. Unless this item is restored, there will be no improvement in the overuse of campground and picnic facilities. Recreation use of the national forests reached an alltime high of 122.6 million visits and 126.5 million visitor-days' use in 1963. Increased use means higher costs for cleanup and care of campgrounds and for policing all areas to maintain desired sanitation and safety conditions. Any reductions in the budget can only be taken by reducing the construction of seriously needed new facilities and this will result in greater use of already overtaxed recreation facilities, as indicated in the following table:

CAMPGROUNDS AND PICNIC SITES

| Fiscal year | Family units | | Visitor-day capacity (millions) | Visitor-day use (millions) | Percent overload |
|---|---|---|---|---|---|
| | Installed at end of fiscal year | Programed to build during fiscal year | | | |
| 1963 | 67,739 | [1] 8,736 | 28.8 | [1] 43.2 | 50 |
| 1964: | | | | | |
| Regular | | 4,671 | | | |
| APW | | 2,843 | | | |
| Total | 75,253 | 7,514 | 32.0 | [2] 45.0 | 40 |
| 1965: | | | | | |
| Regular budget | 80,703 | 5,450 | 34.3 | [2] 47.5 | 38 |
| Reduced budget | 80,103 | 4,850 | 34.0 | [2] 47.5 | 40 |

[1] Actual.
[2] Revised estimate.

At the end of Operation Outdoors (June 30, 1962) there was a 70-percent overuse of national forest campgrounds and picnic sites. Through augmenting regular recreation funds with accelerated public works funds in fiscal years 1963 and 1964, this overuse has been reduced successively to 50 and 40 percent. The regular fiscal year 1965 budget was expected to further reduce the overuse slightly to 38 percent, but if the proposed $700,000 reduction is made, the expected overuse will be the same as in fiscal year 1964.

Overloading recreation areas presents sanitation problems, damages ground cover, causes traffic congestion, and forces countless numbers of visitors to use undeveloped areas which creates additional fire risk and further unsanitary conditions. Any curtailment to campground and picnic area development will be felt in each of the national forest regions.

(*c*) The Department recommends that the reduction of $23,000 for structural improvements for fire and general purposes made by the House be restored. It is important that planning and design start in fiscal year 1965 for a combined regional office and experiment station headquarters building in Radnor, Pa. The cost of this structure will be approximately $2,800,000, and will be reflected

in the budget estimate as soon as the overall budgetary situation will permit. The site for this building was acquired in fiscal year 1963 at a cost of $192,500.

On January 30, 1962, the Forest Service presented to the Appropriation Committees detail about the fiscal year 1963 proposed program for structural improvements for fire and general purposes. Under "Site acquisition" the acquisition near Upper Darby was shown much as it was in the House committee hearings hereinafter described. In the House hearings for that year, the Forest Service provided the committee with a summary of planned structural improvements for fire and general purposes. This statement said, "Negotiations are being conducted for purchase of a site near Upper Darby, Pa., for future construction of a combined research laboratory-regional headquarters installation. It is estimated the cost may be between $125,000 and $175,000. The purchase would be financed jointly from 'Forest land management' and 'Forest research' subappropriations of the 'Forest protection and utilization' appropriation. If site purchase negotiations can be completed during fiscal year 1963, program adjustments will be made within each subappropriation to accommodate this purchase as timely acquisition will result in material savings to the Government."

The site acquisition was not disallowed by either of the Appropriation Committees. In view of this, the Forest Service considered the acquisition met the approval of the committees.

Space occupied by the regional office and the experiment station is inadequate. The headquarters for the experiment station includes laboratories and greenhouses which are not compatible with a location in downtown Philadelphia. The experiment station and regional office should be quartered in the same building. This would provide for economical and more efficient administration because of combining services and facilities.

The planning and design for the building should be done in fiscal year 1965 so that construction can proceed without delay.

(*d*) The Department strongly recommends that the reduction of $500,000 for insect and disease control made by the House be restored. No increase for insect and disease control was requested in the 1965 budget. In fact, since about $1,700,000 funds appropriated in the 1963 supplemental appropriation (Public Law 88–25, approved May 17, 1963) will be obligated in 1964, the 1965 budget estimate actually reflects a program reduction. The House reduced the detection and evaluation project. This project was adjusted within the insect and disease control activity from $1,024,000 to $1,695,000 in the budget estimate because of the importance of these key functions in deciding proper control action. The estimated cost of control work was correspondingly reduced in the budget estimated since exact dimension of suppression needs are difficult to forecast in advance.

We are striving for fast and thorough detection coverage and better diagnosis of pest outbreaks on all forest lands before control action is taken.

Early discovery of pest trouble makes it possible to attack the problem while outbreaks are still small. Better evaluation of outbreaks means more timely and efficient control programs. It assures thorough and complete assessment of all values in the forest stand under pest attack; that cost-benefit returns are sound; that use of pesticides where called for is absolutely necessary for the job at hand; and that the selected chemicals can be safely used.

Detection and evaluation surveys are in particular need of strengthening on non-Federal lands and much of the proposed increase for this item was to provide Federal assistance to States where such work has been lagging. Responsibility for this work is recognized as a Federal responsibility. The work has been severely handicapped in the past by the pressing control problems on national forest land and lack of State interest and facilities. The Forest Service is stimulating this part of the program by negotiating with the States on a State-Federal cost-sharing basis. Some States are preparing to employ needed technical people and to provide their share of these costs. A reduction in funds for detection and evaluation would make it impossible for the Forest Service to provide the Federal financing and consequently reduce the State participation.

Complete and thorough detection and evaluation surveys will:

1. Make possible quick control action while outbreaks are small.
2. Avoid unnecessary control through inadequate diagnosis.

Unless this reduction is restored it will be impossible for the Forest Service to accomplish this highly technical and essential program.

The restoration of the related permanent positions is needed to properly implement the program.

## FOREST SERVICE

### Forest Protection and Utilization

#### FOREST RESEARCH

(House hearings, pp. 1169–1243)

(Senate hearings, pp. 944–1000)

| | |
|---|---|
| 1964 appropriation | $25, 893, 000 |
| 1965 budget estimate | 29, 944, 000 |
| House bill, increases | 135, 000 |
| House bill, decrease | 60, 000 |
| Net House bill increase | 75, 000 |
| House bill | 30, 019, 000 |

#### AMENDMENT REQUESTED

Page 31, line 3, strike out "$30,019,000" and insert "$30,079,000" to restore the House bill decrease.

#### HOUSE REPORT NO. 1237 (P. 22)

"Deletion of planning funds for regional office and research station, Pennsylvania, $60,000"

#### JUSTIFICATION OF THE AMENDMENT BY THE DEPARTMENT

(a) The Department recommends that the reduction of $60,000 for forest research made by the House be restored. See supporting statement comments under item "c" above.

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## FOREST SERVICE

### Forest Roads and Trails (Liquidation of Contract Authorization)

(House hearings, pp. 1210–1218)

(Senate hearings, pp. 1001–1006)

| | |
|---|---|
| 1964 appropriation | $63, 200, 000 |
| 1965 budget estimate | 72, 000, 000 |
| House bill | 70, 300, 000 |
| House reduction | 1, 700, 000 |

#### HOUSE REPORT NO. 1237 (P. 23)

"These funds are required to liquidate the obligations incurred under the contract authorization contained in the Federal-Aid Highway Act. It is estimated that this amount, together with the permanent appropriation of 10 percent of the national forestry receipts and the planned road construction by timber purchasers under timber sales contracts, will provide a total road program in 1965 of about $147.8 million. It should also be noted that the Forest Service has had available $18.8 million from public works acceleration funds for the road program.

"The recommended reduction of $1,700,000 is based on the estimate that about 72 percent of the $72,500,000 planned for obligation in 1965 will require cash expenditures in lieu of the 75 percent factor reflected in the budget estimate. The committee sees no basis for increasing the experience rate of 72 percent reflected in the budget estimates for the current year and believes that with efficient use of the funds that the 1965 budget program for construction of timber access roads can be accomplished."

We have carefully reevaluated the program for 1964 and 1965 and on the basis of present cash projections we believe we can operate within the allowance of $70,300,000 for 1965.

## FOREST SERVICE

### ADMINISTRATIVE PROVISIONS, FOREST SERVICE

(House hearings, pp. 1223–1225)

(Senate hearings, pp. 1010–1012)

#### AMENDMENT REQUESTED

Page 33, line 22, strike out "one hundred and fourteen" and insert "one hundred and fifty-five"; line 23, delete "for replacement only" and insert "of which one hundred and fourteen shall be for replacement only", to restore the budget estimate.

#### JUSTIFICATION OF THE AMENDMENT BY THE DEPARTMENT

The Department recommends that the House reduction of 41 passenger motor vehicles be restored. The purchase of 155 such vehicles, of which 114 are for replacement, is needed to provide transportation essential for the efficient administration of the various Forest Service programs. As of fiscal year 1964, the Forest Service will have 650 such vehicles. The budget proposal would increase this to 691. These vehicles would be used in areas where General Services Administration and common carrier facilities cannot adequately meet program needs. Full use is made of such facilities where they are available. As a result, the total number of passenger vehicles proposed under this budget is 10 less than the total of 701 the Forest Service had in fiscal year 1958, notwithstanding very substantial increases made by the Congress in Forest Service programs since that date. The proposed fleet addition of 41 units is therefore fully justified.

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## FOREST SERVICE

### NUMBER OF EMPLOYEES

(House Report No. 1237, p. 3)

"The committee, which has stressed for years the need for more effective manpower utilization, highly endorses the current efforts of the Agencies, as reflected in the estimates, to limit the number of additional personnel requests. On a total available funds basis, the 1965 budget estimates provide for a net increase of 855 permanent positions over the 1964 authorization of 73,318 employees. The committee allowances provide for a net increase of 354, a reduction of 501 positions. The additional positions approved are primarily for Indian education, welfare, and resources management, and for construction of forest access roads."

This Department is maintaining close surveillance over manpower increases and effective manpower utilization. Forest Service manpower increases for 1965 were held to a minimum consistent with improved management practices, better manpower utilization, and economy of operations.

Following is a tabulation showing the permanent position increase included (1) in the 1965 budget estimate and (2) the House action:

| | Budget estimate | House action | House change from budget estimate |
|---|---|---|---|
| Forest land management | +58 | −33 | [1] −91 |
| Forest research | +12 | +22 | +10 |
| State and private forestry cooperation | +30 | +30 | |
| Forest roads and trails | +276 | +226 | −50 |
| Acquisition, special acts | −4 | −4 | |
| Total | +372 | +241 | −131 |

[1] Includes 40 permanent positions related to $500,000 insect and disease control reduction made by the House.

The Department fully recognizes the need to hold employment to a minimum consistent with achieving program objectives. However, the House reduction in permanent positions for forest roads and trails will have impacts that are particularly serious. The reduction of 50 permanent employees would make it almost impossible to complete the necessary road survey, design, and construction programed for timber access and other purposes in 1965. The program was developed with maximum emphasis on contracting. The employment of competent professioanl engineers to handle road construction, design, contract administration and supervision, and other specialized related work cannot be further reduced without serious implications. This program has increased from a $50 million authorization in 1963 to $72.5 million in 1965, a program increase of almost 50 percent. Permanent positions have increased from 3,252 in 1963 to 3,696 proposed in the 1965 budget estimate, an increase of less than 15 percent. The Department strongly recommends reduction of the 50 permanent positions for forest roads and trails made by the House be restored.

As discussed in connection with the restoration of insect and disease program funds, the Department recommends the restoration of the 40 related permanent positions reduced by the House.

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## FEDERAL COAL MINE SAFETY BOARD OF REVIEW

Hon. CARL HAYDEN,
*Chairman, Committee on Appropriations,*
*U.S. Senate,*
*Washington, D.C.*

DEAR SENATOR HAYDEN: In reply to your letter of the instant date, reference is made to page 35, line 6, of the Department of the Interior and Related Agencies appropriation bill for the fiscal year ending June 30, 1965, as reported by the House Committee on Appropriations (H.R. 10433). The Board strongly urges, for the reasons adverted to below, that the amount of $65,000 appropriated for this agency in the House bill be amended to read $70,000, as requested in the budget estimate of the Board submitted to the Congress.

The amount of $65,000 provided in the House bill for fiscal year 1965 would limit the Board to the same amount as that appropriated for the current fiscal year.

The compelling needs for a $5,000 increase in the appropriation for fiscal year 1965, over the current year's appropriation, were fully detailed in the justification of the 1965 budget estimate, and in the Board's supplemental statements at the hearings conducted by your committee. It is sufficient to add, here, that even the appropriation for the current fiscal year may prove inadequate, and request for a supplemental appropriation may be necessary, because of an increase in agency activities, including a number of formal appeals recently filed with the Board by coal mine operators. One of these appeals is scheduled for hearing on its merits, during the next month, in southwestern Virginia, as required by the Federal Coal Mine Safety Act and will necessitate extensive consideration to resolve the issues involved. Moreover, even assuming this agency can fulfill its statutory responsibilities for the current fiscal year under the present appropriation, which is now questionable, the Board will need an increase of $2,500 for fiscal year 1965 just to maintain the present reduced staff of only four full-time employees. This added payment is mandatory, as you know, under the Classification Act amendments of 1962 and the automatic schedule step increases, over which the Board has no control. The balance of the requested addition for fiscal year 1965 would provide only the minimum amounts needed to cover increases in the Board's other administrative and adjudicative expenses, based on the past and current fiscal year experience of this agency.

Accordingly, in order for the Board to fulfill its statutory duties and to accomplish its mission of preserving human lives and property under title II of the Federal Coal Mine Safety Act, it is imperative, and the Board strongly urges, that page 35, line 6, of H.R. 10433 be amended to read $70,000, instead of $65,000 as appears in the House bill.

For the Board:
Sincerely yours,

CHARLES R. FERGUSON,
*Member of the Board.*

## HEALTH, EDUCATION, AND WELFARE

### PUBLIC HEALTH SERVICE

MARCH 18, 1864.

Hon. CARL HAYDEN,
*Chairman, Committee on Appropriations,*
*U.S. Senate,*
*Washington, D.C.*

DEAR MR. CHAIRMAN: The House of Representatives has now acted on H.R. 10433, making appropriations for fiscal year 1965 for the Department of Interior and related agencies. Included in the bill as passed by the House are the amounts of $61,500,000 for "Indian Health Activities," and $8 million for "Construction of Indian Health Facilities," which are programs administered in the Department of Health, Education, and Welfare.

The House action on the estimate for "Indian Health Activities" is a reduction of $76,000 from the amount contained in the President's budget. Although I believe that our original estimate was a firm one, I am not requesting restoration of the reduction.

The House has reduced the 1965 estimate for "Construction of Indian Health Facilities" by $643,000. In its report, the Committee on Appropriations explains that this reduction is due to anticipated slippage based on an unobligated balance of over $11 million in this appropriation as of January, 1964, and the provision in the estimate for a carryover unobligated balance of $650,000 at the end of fiscal year 1965. The House report also directs us to proceed with the planning and construction of alterations to the hospital at Wagner, S. Dak., a project which was not included in our estimate for 1965.

I do not recommend that the Senate restore the reduction of $643,000. However, I believe that it is appropriate to inform you of the interpretation which we place on the House action with respect to this item.

We have generally followed the policy in our budget estimates for construction of requesting appropriations at two stages. The first stage represents the full amount necessary for planning and site acquisition, and the second stage represents the full amount necessary for completion of construction and fixed equipment, including technical services, supervision, and contingencies. Because of the time element involved in construction projects, some of these funds are normally not obligated until after the end of the budget year. The House committee's action, both this year and last year, makes it apparent that they prefer to appropriate only those amounts which will actually be obligated during the budget year. If the Senate sustains the House action, we are therefore planning to proceed with the projects which were included in the budget plan to the extent approved by Congress as evidenced in the committee reports, and to request such additional funds as are required for completion of those projects in the estimates for 1966.

Sincerely,

ANTHONY J. CELEBREZZE, *Secretary.*

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## SMITHSONIAN INSTITUTION

### NATIONAL ZOOLOGICAL PARK

MARCH 18, 1964.

Hon. CARL HAYDEN,
*Chairman, Department of the Interior and Related Agencies Subcommittee of the Committee on Appropriations, U.S. Senate, Washington, D.C.*

DEAR SENATOR HAYDEN: Thank you for your letter of March 18, 1964, requesting amendments considered to be justifiable for the Smithsonian Institution in the Department of the Interior and related agencies appropriation bill for the fiscal year ending June 30, 1965 (H.R. 10433), as passed by the House of Representatives on March 17, 1964.

The Smithsonian Institution requests amendments to restore $94,000 for the oceanography program in the "Salaries and expenses" appropriation and $501,000 for "Construction and Improvements, National Zoological Park."

SALARIES AND EXPENSES

On page 39, line 16, change $15 million to $15,094,000.

The Smithsonian Institution requests restoration of $94,000 cut by the House of Representatives from its request for the "Salaries and expenses" appropriation. The restoration funds are needed for the oceanography program to employ a limited additional staff to sort and to study organisms received from federally financed marine expeditions. These services are required by scientists and scientific organizations both within and without the Federal Government. No other agency is performing the essential function of sorting marine specimens.

The total amount requested by the Smithsonian Institution for fiscal year 1965 for the oceanography program represents less than 1 percent of the amount for the entire oceanographic effort in the Government. Yet, the Smithsonian's role is vital. At the request of the other agencies concerned, the Smithsonian is serving as the primary Federal repository for marine specimens being collected by oceanic cruises and as the center for sorting such specimens. The Smithsonian was urged to expand its work in marine systematic biology because it has exceptional scientific capabilities in this area, including outstanding marine collections. Unless the full amount requested for fiscal year 1965 is granted, the Smithsonian will not be able to meet its assigned share of the Federal oceanography program to supply information on the nature and identity of the increasingly large numbers of specimens being received from marine expeditions.

It is urged, therefore, that this request for restoration of $94,000 for the oceanography program be favorably considered.

CONSTRUCTION AND IMPROVEMENTS, NATIONAL ZOOLOGICAL PARK

On page 40, line 10, change "$1,275,000" to "$1,776,000".

Restoration of the amount of $501,000 which was reduced by action of the House is urgently requested in order to provide the total amount of $1,776,000 for capital improvements at the National Zoological Park, as carried in the budget for fiscal year 1965.

The principal features to be constructed in 1965 comprise a winter house complex of three buildings for delicate hoofed stock, the main sewerage system for the park for both storm water and sanitary flow, an automobile parking lot for visitors, and associated utility lines. Restoration of the cut is necessary to avoid deferring construction of two of the three winter houses or, alternatively, deferring installation of the sewerage system.

Deferment of a part of the winter house complex will effectively deny to the public the benefits of constructing the delicate hoofed stock exhibit until the following year, when the remaining two houses can be funded and constructed. Restoration of the $501,000 is essential, therefore, in order that this area may be developed as an integral exhibition unit.

Deferment of the new sewerage system would result in the continuation of pollution of Rock Creek by the National Zoological Park. Elimination of this pollution from a governmental source such as the Zoo has been strongly urged by health authorities and by the House Committee on Public Works.

Restoration of the amount of $501,000 is necessary also to avoid stretchout over an unreasonable period of years the scheduled 10-year program of needed improvements at the National Zoological Park.

Sincerely yours,

S. DILLON RIPLEY, *Secretary.*

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## NATIONAL CAPITAL PLANNING COMMISSION

MARCH 18, 1964.

Hon. CARL HAYDEN,
*Chairman, Committee on Appropriations,*
*U.S. Senate, Washington, D.C.*

DEAR SENATOR HAYDEN: The National Capital Planning Commission respectfully requests the restoration of its full budget request of $774,000 for salaries and expenses and $3 million for land acquisition in the Department of the Interior and related agencies appropriation bill, 1965 (H.R. 10433). Amendatory language to accomplish this restoration is attached.

SALARIES AND EXPENSES

The Commission feels justified in asking for restoration of the entire amount of $124,000 for salaries and expenses deleted by the House of Representatives.

As we pointed out in our testimony to the Senate Appropriations Subcommittee, the construction cranes and demolition equipment on the Washington skyline provide visible and dramatic evidence of the tremendous physical changes taking place in the Nation's Capital. Whether such development activity is governmental or private, the National Capital Planning Commission, as the central physical planning agency for the Federal and District of Columbia governments in the National Capital region, must provide the planning framework within which such activity occurs. With adequate staff and budget the Commission can furnish to the community and to the Federal and District of Columbia governments comprehensive and project planning and related advice and assistance that will enable the National Capital and its environs to develop and redevelop in a more economic, efficient, and attractive manner.

Of major concern to the Commission, therefore, is the deletion by the House of Representatives of $76,720 for eight new professional, technical, and administrative positions needed to fill certain gaps in the personnel resources of the Commission and the Regional Planning Council and to provide a staff with a variety of skills and technical knowledge. These positions are editorial and technical writing aid, GS–12; personnel management assistant, GS–7; assistant highway planning engineer, GS–12; statistician, GS–9; 2 urban planners, GS–12; urban planner, GS–11; and stenographer, GS–6. Several of the positions are needed to help meet congressional policy or to facilitate planning for the Federal Establishment in the National Capital region. For example, the assistant highway planning engineer is essential to Commission and Council participation in the continuous comprehensive transportation planning process for the metropolitan area required under the Highway Act of 1962; one urban planner would be added to the Commission's Federal Planning Division staff to assist in the review of existing Federal landholdings in the region and the development of a program for their optimum utilization and in the preparation of portions of the 1985 comprehensive plan for the District of Columbia relating to the location of Federal employment centers.

In addition to the staff needs discussed above, the Commission has continuing need for consulting services for specific projects and activities for which it is neither feasible nor economic to hire additional personnel. It is respectfully requested that the Senate restore the $28,000 for experts and consultants, as well as the $3,000 for seasonal positions and the $16,280 for increased travel costs, increased telephone system costs, supplies and materials, and statistics and data processing. The amounts requested by the Commission and Council for such personnel, services, and materials represent minimums essential to carrying out the responsibilities of the Commission and Council in an efficient and economic manner.

LAND ACQUISITION, NATIONAL CAPITAL PARK, PARKWAY, AND PLAYGROUND SYSTEM

The House of Representatives deleted $800,000 requested by the Commission to replace an equal amount appropriated to the Commission under section 4 of the Capper-Cramton Act for land acquisition for parks, parkways, and playgrounds in the District of Columbia. This amount, which is repayable to the Treasury by the District of Columbia, was used for land acquisition for the John F. Kennedy Center for the Performing Arts in partial fulfillment of the congressional policy that the site be provided by the Federal Government. In view of the continuing needs of the community for neighborhood parks and playground facilities and the fact that all of the funds authorized to be appropriated under the Capper-Cramton Act have been appropriated and committed, the Commission strongly requests the restoration of this amount.

Sincerely yours,

Mrs. JAMES H. ROWE, Jr., *Chairman.*

# DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATION BILL, 1965

(H.R. 10433)

MARCH 18, 1964.

PROPOSED AMENDMENTS RELATING TO THE NATIONAL CAPITAL PLANNING COMMISSION

SALARIES AND EXPENSES

On page 37, line 17, strike out "$650,000" and insert in lieu thereof "$774,000".

LAND ACQUISITION, NATIONAL CAPITAL PARK, PARKWAY, AND PLAYGROUND SYSTEM

On page 37, line 24, strike out "$500,000" and insert in lieu thereof "$1,300,000."

# INDIVIDUALS AND ORGANIZATIONS INDEX


A

Page

Addabbo, John J. 1360
Advanced Technology Laboratories, Schenectady, N.Y. 1457
Aiken, Hon. George D. 1428
Alaska Coastal-Ellis Airlines 1400
Albert, Hon. Carl 738
Allen, A. O. 135, 198
Allott, Hon. Gordon 1437
American Association for Health, Physical Education, & Recreation 1538
American Association of Nurserymen 1531
American Dental Association 1564
American Hardboard Association 1067
American Public Power Association 1552
American Recreation Society, Inc., Washington, D.C. 275
American Turpentine Farmers Association 1529
American Walnut Manufacturers' Association 1506
Anderson, Charles A. 421
Anderson, Hon. Clinton P. 274, 1053, 1452
Anderson, Dr. Jackson M. 1538
Anderson, Ralph J. 275
Ankeny, Marling J. 479, 504, 506, 513, 523, 526, 535
Arlington Memorial Co. 1563
Atherton, Charles H. 1311
Atlantic States Marine Fisheries Commission 788

B

Baggenstoss, Herman E. 1525
Baker, Arthur A. 421
Baker, Howard W. 276, 382
Baker, John A. 916, 920
Barry, Frank J. 1085, 1089, 1094, 1098, 1101
Bartlett, Hon. E. L. 85, 98, 135, 157, 186, 188, 226, 230, 234, 398, 402, 408, 461, 579, 599, 632, 694, 793, 988, 1098, 1100, 1102, 1108, 1111, 1302, 1389, 1393, 1412, 1424, 1434, 1467, 1479, 1489.
Bascom, Kenneth E. 1432
Baum, David C. 1373
Beardslee, J. M. 1445
Beasley, Hon. D. Otis. 16, 183, 348, 1069, 1082, 1083, 1084, 1085, 1156
Becker, Ralph E. 1339
Behm, Richard D. 1508
Beirne, James P. 51, 83, 100, 102, 121, 132
Belcher, Hon. Page 738
Bennett, Hon. John B. 1455
Bennett, Hon. Wallace F. 894, 1057
Bible, Hon. Alan 1, 36, 40, 46, 91, 99, 103, 105, 130, 132, 135, 227, 233, 236, 263, 269, 287, 323, 338, 358, 372, 386, 390, 395, 398, 401, 419, 453, 459, 461, 469, 471, 476, 527, 537, 577, 583, 598, 632, 645, 841, 847, 849, 857, 866, 882, 884, 886, 891, 896, 901, 906, 908, 965, 1008, 1021, 1069, 1082, 1084, 1089, 1094, 1098, 1104, 1106, 1113, 1118, 1120, 1122, 1138, 1157, 1163, 1169, 1172, 1177, 1179, 1201, 1216, 1219, 1227, 1233, 1243, 1387, 1393, 1412, 1424, 1427, 1438.

Page
Bock, Troy L. 1157
Boggs, Hon. J. Caleb 1391
Boise Cascade Corp. 1372
Bolle, Arnold W. 993, 1448
Boutin, Hon. Bernard L. 258
Bradley, James 1321, 1338
Breen, Joseph M. 1307
Bridges, Wayne W. 1492
Brown, William Ross, Jr. 1523
Buell, Noble E. 870
Burdick, Hon. Quentin N. 1451
Burton, Hon. Laurence J. 1434
Byrd, Hon. Robert C. 657, 663, 677, 849, 1031, 1457, 1506, 1518, 1528, 1534

C

Cairns, Huntington 1313
Carey, Willard K. 1373
Carver, Hon. John A., Jr. 345
Case, Hon. Clifford P. 752
Celebrezze, Hon. Anthony J. 257
Celler, Hon. Emanuel 1546
Chadwick, Henry V. 1302
Church, Hon. Frank 1554
Clagett, Lee P. 1563
Clague, G. Richard 1246
Clapper, Louis S. 1550
Cliff, E. P. 916, 921, 926, 958, 963, 965, 971, 975, 989, 998, 1007, 1021, 1029, 1033, 1043, 1046
Cochran, Neal P. 662, 670, 673, 679
Cohodas, S. M. 1424, 1456
Cohen, Robert A. 1246
Colean, Miles L. 1245
Conrad, Charles H. 1214
Cook, Lawrence F. 276, 317
Cooper, Vance R. 1457
Corbin, Wesley E. 901
Cott, Perry B. 1313
Cotton, Hon. Norris 787, 792
Crafts, Edward C. 241, 250, 254, 258
Crawford, John E. 479, 513
Crow, John O. 133
5

D

Dakan, Allen S. 636
Dawson, John E. 51
Delaney, Hon. James J. 1546
Department of Conservation, Cornell University 1433
DeTemple, Mrs. Polly 1375
DeWeese, Tom 913
Dickey, Don 1400
Dietrich, Warren E. 1065
Diller, Oliver D. 1063
Dillon, Hon. Douglas 258
Dirksen, Hon. Everett R. 1472
Duncan, Harold J. 421
Duncan, Wallace L. 1085, 1094
Dutch Elm Disease Control Committee, Wooster, Ohio 1063
Dutton, W. C. 1203, 1318, 1222, 1226

E

Eaton, Paul R. 890
Edmondson, Hon. Ed 738
Edmondson, Hon. J. Howard 738
Edward Hines Lumber Co., Chicago, Ill. 1471
Elgin Soil Conservation District 1371
Elgin Soil Watershed Committee 1371
Elliott, Hon. Carl 1122

F

Page
Federal Aviation Agency, Central Region, Kansas City, Mo 1445
Federation of Citizens Associations of the District of Columbia 1489
Feidler, Ernest R 1313, 1319
Ferguson, Charles R 1157, 1161, 1163
Fisher, Loyal C 1246
Fitch, Edwin M 407
Forest Farmers Association 1523
Forest Service 916
Fox, G. D 916
Freehling, Robert J 1157
Freeman, Hon. Orville L 258
Friends Committee on National Legislation 1516
Fryer, R. Reeseman 135
Fulbright, Hon. J. W 884
Fumich, George, Jr 639, 641, 643, 654, 656, 659, 663, 682, 684

G

Gallo, Giulio 1487
Geauga County Mapel Festival Board 1432
Gehrig, Dr. Leo J 1246
General Electric Co 1457
Georgia Forest Research Council, Macon, Ga 1526
Gifford, Miss Selene 135
Glacier Park, Inc 1444
Glascock, Hardy 1059
Goding, Hon. M. W 539, 628
Gordon, Hon. Kermit 258
Gore, Hon. Albert 996
Goss, Ed 1120
Gott, Donald H 1506
Gowen, Gordon H 1432
Greeley, A. W 916, 963, 1024, 1034, 1049
Gruening, Hon. Ernest 1393
Guerrero, Hon. M. F. L 572, 575

H

Hager, Charles F 1432
Haller, Dr. George L 1457
Hanna, Mrs. Jean R 1104, 1106
Harding, T. R 1433
Harper, V. L 916, 924, 977, 981, 989, 999, 1030, 1039, 1050
Hart, Hon. Philip A 1420b
Hartley, Earl 1558
Hertzog, George B., Jr 276, 278, 282, 287, 312, 316, 322, 332, 338, 342, 348, 350, 358, 360, 364, 371, 380, 382, 386
Hayden, Hon. Carl, chairman 1, 16, 36, 49, 51, 54, 60, 77, 82, 85, 92, 98, 102, 105, 113, 119, 121, 134, 135, 138, 150, 157, 172, 178, 183, 186, 190, 196, 208, 212, 216, 219, 225, 230, 234, 236, 238, 241, 250, 259, 272, 274, 276, 278, 312, 316, 322, 331, 338, 341, 355, 357, 364, 371, 380, 390, 402, 407, 410, 417, 421, 448, 452, 462, 475, 479, 504, 507, 512, 523, 525, 530, 535, 539, 562, 572, 575, 584, 490, 631, 636, 639, 642, 646, 656, 660, 689, 699, 703, 727, 734, 738, 741, 746, 748, 759, 762, 770, 774, 780, 785, 800, 825, 827, 833, 840, 911, 916, 925, 958, 963, 970, 974, 980, 989, 998, 1007, 1150, 1213, 1307, 1309, 1312, 1313, 1319, 1321, 1324, 1330, 1334, 1339, 1343, 1359.
Hayes, Lloyd B 1313
Heintzleman, Hon. B. Frank 988
Heller, G. Louis 1207, 1223
Hendee, C. W 916, 1044
Hendricks, Ernest L 421, 466, 474
Hetzel, Theodore B 1516
Hill, Hon. Lister 887
Hodges, Hon. Luther H 258, 1381
Hodgson, James 1500

Page
Hoemann, Miss Maria 1321
Hopkins, Donn 1397
Horne, Hon. John E 258
Houghton National Bank 1423, 1456
Howard, John J 1423, 1456
Hummel, Don 1444
Humphrey, Hon. Hubert H 1212, 1213, 1555

I

Igleheart, Margaret A 1431
Immer, John R 1489
Intermountain Forest & Range Experiment Station Laboratory, University of Montana 1446

J

Jackson, Hon. Henry M 226, 1552
Janzen, Daniel H 823, 835, 840, 871, 882, 896, 902
Jarman, Hon. John 738
Javits, Hon. Jacob K 1546
Jemison, G. M 916
Jensen, J. E. N 276, 371
Jensen, Joe E 1445
Jett, T. Sutton 276, 316, 343
Jobe, William T., Jr 1467
Johnson, Frank E 636
Johnson, Raymond E 800
Johnson, Ture 1432
Johnston, Hon. Olin D 892
Juneau, Alaska, Chamber of Commerce 1400

K

Kelly, Samuel G 1164, 1172, 1177
Kennedy, Hon. Edward M 1438
Kentucky Department of Conservation 1061
Kephart, George 135, 173
Kerr, Dr. I. Lawrence 1564
Kirkness, Walter 909
Kirwan, John J 391, 395
Kleb, William J 757, 1535
Knodel, Walter J 135, 228
Koehler, Fred V 1375
Kuchel, Hon. Thomas H 1058

L

LaGrande Industrial Development Corp 1373
Larson, G. Edward 669, 678, 680, 683
Larson, Sidney D 16, 1069
Layton, Cleo F 689
Lederer, Robert S 1531
Lee, Donald E 341, 344, 364
Lee, Hon. H. Rex 584, 589, 591, 594
Lesure, Linwood B 1433
Lewis, Charles H., Jr 1064
Linville, Donald 1067
Long, Hon. Edward V 975, 985
Louisiana Forestry Association 1064, 1065
Lowry, Dr. James V 1246
Lyddan, Robert H 421

M

McBroom, James T 866, 872
McCarthy, Hon. Eugene J 1555
McClellan, Hon. John L 885
McCurdy, Wayne A 646

Page

McGee, Hon. Gale W. 1, 44, 48, 86, 104, 123, 130, 132, 135, 156, 198, 208, 217, 271, 323, 331, 341, 459, 472, 509, 512, 514, 874, 878, 1102, 1175, 1542.
McGovern, Hon. Geroge 1541
McIntyre, Hon. Thomas J 1449
McKernan, Donald L 728, 733, 741, 745, 748, 759, 762, 770, 780, 791
McNamara, Hon. Robert S 258
MacGowen, Charles F 1123, 1137
Macapagal, Hon. Diosdado Pangan 1171
Mack, H. B 916
Magnuson, Hon. Warren G 1552
Mahon, Miss Edith A 1085, 1090, 1095
Maine Sugar Makers Association 1433
Mansfield, Hon. Mike 1, 580, 593, 596, 882, 992
Massey, Fred H 135
Mensh, Nathan Povich 1483
Metcalf, Hon. Lee 1445
Meyer, Bernard R 361
Miller, D. H 1123
Miller, Paul R 1432
Miller, V. P 1164
Miller, Hon. William E 1546
Missouri Conservation Commission 986
Mitchell, L. J 1401
Monroney, Hon. Mike 738, 1425
Montana State University, Missoula 993
Montgomery, C. P 276, 312, 331, 338, 371, 386
Moore, J. Cordell 410, 419
Moravetz, Robert L 421
Morse, Hon. Wayne 1363
Moss, Hon. Frank E 889, 1413
Mundt, Hon. Karl E 86, 89, 91, 102, 104, 121, 135, 266, 273, 287, 339, 341, 344, 351, 360, 364, 382, 386, 390, 634, 658, 735, 745, 751, 762, 771, 787, 791, 853, 856, 866, 871, 878, 990, 1008, 1023, 1304.
Muschler, Arthur F 1471

N

Myers, J. Walter, Jr 1523
Nash, Philleo 135,137, 150, 156, 172, 178, 186, 196, 208, 212, 216, 219, 226, 230, 236, 238
National Arborist Association 1063
National Association of Soil & Water Conservation Districts 1559
National Association of State Foresters, Augusta, Maine 275
National Lumber Manufacturers Association 1467
National Maple Syrup Council 1432
National Reclamation Association 1511
National Wildlife Federation 1550
Neely, Miss Frances 1516
Nelson, Hon. Gaylord 1054, 1056
Nelson, M. M 916, 968, 972, 1007, 1027, 1031
Nevins, Dr. Allan 1120
New Hampshire Maple Producers Association 1432
New York State Conservation Department, Albany, N.Y 893
New York State Maple Products Association 1432
Nolan, Thomas B 421, 448, 451, 459, 471
North Carolina Recreation Commission, Raleigh, N.C 274
Norwood, J. Leonard 135

O

O'Meara, J. W 1150
O'Neal, Emmett 1164, 1169, 1174, 1177
Officer, James E 135
Orden, Sol 1246
Oregon Association of Soil & Water Conservation Districts 1372
Oregon Wildlife Federation (resolution) 1375
Oyster Institute of North America 1534

Page

P

Parker, Lansing A---- 829, 834, 841, 848, 856, 908
Patterson, W. H---- 1372
Pautzke, Clarence F---- 689, 691, 699
Payne, B. H---- 916
Peterson, Elmer---- 1372
Pickens, John K---- 1203, 1223, 1225
Podolak, Raymond E---- 800
Pomeroy, Kenneth B---- 1514
Price, Jackson E---- 276, 312, 318
Pritchard, John R---- 1179
Proxmire, Hon. William---- 1521

Q

Quenstedt, Warren D---- 1235, 1244

R

Rabeau, Dr. Edwin S---- 1299
Radford, Robert T---- 1480
Radin, Alex---- 1552
Remington, Charles E---- 51, 84, 94, 98, 122
Ricca, John---- 410, 417
Rice, Harry W---- 241
Riley, Roderick H---- 135
Ripley, Dr. S. Dillon---- 1330, 1333, 1335, 1337, 1339
Roberts, C. A---- 1529
Robertson, Dr. James---- 1118, 1119
Robertson, Hon. A. Willis---- 890
Roosevelt, Hon. Franklin D., Jr---- 1056
Rosenbaum, Joe B---- 479, 508, 512, 515, 527, 537
Rothrock, Dale L---- 407, 636, 1069, 1085, 1123
Rowe, Mrs. James H., Jr---- 1201, 1209, 1213, 1215, 1219, 1221, 1562
Ruark, H. E---- 1526
Rubin Henry C---- 1526

S

Sallee, Henry L---- 1371
Saltonstall, Hon. Leverett---- 361, 787, 1438
Sandberg, Lynn---- 1066
Sawyer, Philip J---- 792
Schultz, E. W---- 916
Schwan, Charles F., Jr---- 1542
Schweickart, L. G---- 1164
Schwengel, Hon. Fred---- 1114, 1117
Scott, Hon. Hugh---- 1450
Screen, Joseph F---- 539
Seeger, Edwin H---- 1240
Senzel, Irving---- 51, 77, 122, 133
Shear, Daniel H---- 1212, 1215, 1217, 1219
Sheridan, R. E---- 1446
Simmons, S. B---- 1400
Simms, Perry B---- 421
Slight, Russell W---- 410
Smith, Harold G---- 276
Smith, Howard A---- 646
Smith, Hon. Margaret Chase---- 787, 1506
Small, Miss Mary---- 1179
Snow, F. H., Canning Co., Wildwood, N.J---- 757
Snyder, Edward---- 1516
Southern Illinois University---- 1475
Southern Pine Industry Committee---- 912, 913
Sparkman, Hon. John---- 888
Spillers, A. R---- 916, 1009, 1028
Stagner, Howard---- 276, 386
State Park and Recreation Commission, Augusta, Maine---- 275
Stearns, Fred E---- 421
Steed, Hon. Tom---- 738

Page

Stennis, Hon. John ... 911, 913, 1479
Stevens, James S., Jr ... 276
Stevens, Lawrence N ... 241
Stevens, Roger L ... 1343, 1358, 1359
Stevenson, Albert H ... 1301, 1303
Stewart, Dr. T. Dale ... 1321
Stoddard, Charles M ... 51, 54, 58, 77, 82, 86, 98, 102, 119, 121, 130, 132
Stolzenbach C. Darwin ... 1232, 1234, 1243
Stone, Edward D ... 1342
Stratton, A. Clark ... 276, 322, 340, 346
Strong, Hon. L. Corrin ... 1358
Stuart, Lawrence ... 275
Swem, Theodor R ... 276
Swidler, Hon. Joseph C ... 258
Symington, Hon. Stuart ... 975, 985

T

Taitano, Richard F ... 562, 572, 579
Teague, Hon. Charles M ... 1479
The American Forestry Association ... 1514
Thompson, Ben H ... 276
Thompson, Mrs. Hildegard ... 135, 151
Thomson, Elwood ... 479, 527, 532
Tilford, Paul E ... 1063
Tollensa, Kenneth C ... 1373
Tolson, Hillory A ... 1446
Tomey, J. Neal ... 1233, 1237
Towell, William E ... 986
Trepagnier, Henry L., Jr ... 1485
Trevorrow, George C ... 1157
Tudor, Dr. William J ... 1475
Tunison, Abram V ... 825, 833, 841, 847, 849, 856, 866, 875

U

Udall, Hon. Stewart L ... 16, 34, 178, 255, 257, 343, 349
Ullman, Hon. A ... 996
University of New Hampshire, Durham, N.H ... 792
University of Vermont ... 1432
Upper Peninsula Committee on Area Problems, Michigan ... 1066

V

Vermont Maple Industry Council ... 1430

W

Wagner, Hon. Aubrey J ... 258
Wagner, Dr. Carruth J ... 1262, 1267, 1269, 1291, 1296, 1299
Walker, Carl O ... 276
Wallace, Mrs. David ... 1534
Walton, William ... 1309, 1312
Washington Building Congress, Inc ... 1563
Watershed Fire Council of Southern California ... 1480
Watkins, Arthur V ... 178, 1104, 1106
Weaver, Hon. Robert C ... 258
Weinberg, Edward ... 1085, 1096
Wells, Robert A ... 1400
Welsh, William E ... 1511
Welt, Mark B ... 51
Western Forestry and Conservation Association ... 1059
Westfield, James ... 479, 523
Wheeler, Henry P ... 479, 535, 537
Whitener, Hon. Basil L ... 1245
Whitmore, George D ...
Wible, Ralph C ... 1509
Wickersham, Hon. Victor ... 738
Wiles, Francis ... 135
Wilkes, James C., Jr ... 1496

Page
Wilkins, Austin H ..... 275, 1502
Williams, Hon. Harrison A., Jr ..... 757, 1543
Wilm, H. G ..... 893
Wilson, Linton R ..... 1307
Wilson, William F ..... 1424
Winch, Fred E., Jr ..... 1433
Wirin, Harry B ..... 916
Wolf, Robert E ..... 51
Won Pat, Antonio B ..... 579, 580, 583

Y

Young, Hon. Milton R ..... 238, 398, 409, 419, 460, 578, 597, 662, 698, 733, 831, 840, 924, 1226, 1483, 1486

Z

Zinner, Paul ..... 479, 527
Zumwalt, Eugene V ..... 51

# SUBJECT INDEX


| | Page |
|---|---|
| Department of the Interior and related agencies (beginning of hearings) | 1 |
| Statement of the chairman, Hon. Carl Hayden | 1 |
| Statement of the Hon. Stewart L. Udall, Secretary of the Department of the Interior | 16 |
| Analysis of budget estimate | 23 |
| Bureau of Indian Affairs | 24 |
| Education and welfare | 24 |
| Resources management | 24 |
| Construction | 24 |
| Road construction | 24 |
| Menominee Tribe School costs | 24 |
| Bureau of Land Management | 23 |
| Management of lands and resources | 23 |
| Construction of buildings and sanitation and protection facilities | 23 |
| Liquidation of obligations incurred under contract authorization contained in the Federal Highway Act of 1962 | 23 |
| Oregon and California grant lands with the provision that this amount is reimbursable to the Treasury from receipts from those lands | 23 |
| Bureau of Mines | 29 |
| Conservation and development | 29 |
| Health and safety | 29 |
| Helium fund | 29 |
| Bureau of Outdoor Recreation | 26 |
| Nationwide recreation plan | 26 |
| Recreation Advisory Council | 27 |
| Report on recreation activities | 27 |
| River basin review | 27 |
| Fish and Wildlife Service | 31 |
| Research and management programs to conserve fish and wildlife resources of the Nation for recreational and commercial use | 31 |
| Bureau of Commercial Fisheries | 31 |
| Research | 32 |
| Federal-State Columbia River fishery development program | 32 |
| Special foreign currency program | 32 |
| Fishery facilities | 32 |
| Administrative expenses | 32 |
| Bureau of Sport Fisheries and Wildlife | 32 |
| Pesticide research | 33 |
| Migratory bird conservation | 33 |
| Geological Survey | 28 |
| Increased pay costs for fiscal year 1964 positions | 28 |
| Investigations and data collection | 28 |
| Topographic mapping program | 28 |
| Oceanographic work | 29 |
| Geologic and mineral resource surveys and mapping | 29 |
| Conservation of lands and minerals | 29 |
| Denver Federal Center | 29 |
| National Park Service | 25 |
| Management and protection | 25 |
| Construction estimates | 25 |
| Construction (liquidation of contract authorization) | 26 |
| General administrative expenses | 26 |
| Office of Coal Research | 30 |
| Contract research projects | 30 |

Department of the Interior and related agencies—Continued
Analysis of budget estimate—Continued Page
Office of Minerals Exploration 31
Finanaical assistance to participants in the exploration program 31
Office of Oil and Gas 31
Coordination of Federal oil and gas policies 31
Office of Saline Water 33, 35
Research and development program 33
Operation and maintenance of demonstration plants 33
Basic and applied research 33
Office of the Secretary 34
Administration 34
Increased pay costs and general strengthening in certain areas 34
Office of the Solicitor 33
Increased pay costs, personnel benefits and a strengthening of the staff by filling some vacancies in established positions to cope with increasing demand for legal services 33
Office of Territories 28
Guam—economic, social, and political development; rehabilitation program 28
American Samoa—education, public health, communications and public works 28
Trust Territory of the Pacific Islands—construction program; educational services; expanded medical services; resources management and development; operation, maintenance, transportation, and communications services 28
Appropriations compared with receipts (exclusive of trust funds) Department of the Interior, exclusive of the Bureau of Reclamation and power marketing agencies 5
Comparative statement of the appropriations for fiscal year 1964, and the estimates for fiscal year 1965 2
Title I—Department of the Interior 2
Bureau of Indian Affairs 2
Bureau of Land Management 2
Bureau of Mines 2
Bureau of Outdoor Recreation 2
Fish and Wildlife Service 3
Office of the Commissioner 3
Bureau of Commercial Fisheries 3
Bureau of Sport Fisheries and Wildlife 3
Geological Survey 2
National Park Service 2
Office of Coal Research 2
Office of Minerals Exploration 2
Office of Oil and Gas 2
Office of Saline Water 3
Office of the Solicitor 3
Office of Territories 3
Office of the Secretary 2
Title II—Related agencies 3
Commission of Fine Arts 4
Department of Agriculture—Forest Service 3
Department of Health, Education, and Welfare—Public Health Service 4
Federal Coal Mine Safety Board of Review 4
Historical and memorial commissions 4
Civil War Centennial Commission 4
Corregidor-Bataan Memorial Commission 4
Indian Claims Commission 4
National Capital Planning Commission 4
National Capital Transportation Agency 4
Smithsonian Institution 4
Transitional grants to Alaska 4
Title III—Virgin Islands Corporation 4

Page
Department of the Interior and related agencies—Continued
Justifications for permanent appropriations, fiscal year 1965 6
Bureau of Commercial Fisheries 11
Promote and develop fishery products and research pertaining to American fisheries 11
Payment to Alaska from Pribilof Island receipts 12
Bureau of Indian Affairs 8
Claims and Treaty Obligations 8
Statement relating 1963, 1964, and 1965 programs 8
Justification 8
Miscellaneous permanent appropriations 9
Statement relating 1963, 1964, and 1965 programs 9
Justification 9
Bureau of Land Management 6
Miscellaneous permanent appropriations 6
Justification 6
Bureau of Sport Fisheries and Wildlife 12
Migratory bird conservation account 12
Justification 12, 13
Federal aid in fish restoration and management 14
Justification 14
Federal aid in widlife restoration 14
Justification 14
Payments to counties, national grasslands 15
Justification 15
Permanent appropriations from national wildlife refuge receipts 15
Justification 15
Geological Survey 11
Permanent appropriation 11
Justification 11
National Park Service 10
Miscellaneous permanent appropriations 10
Justification 10
Office of Territories 11
Internal Revenue collections for Virgin Islands 11
Justification 11
The Alaska Railroad (beginning of hearings) 402
Narrative statement of programs and financing 403
Exhibit A—Actual and estimated operating revenues and expenses 403, 404, 405
Exhibit B—Estimates for additions, betterments, and replacements 406
Exhibit C—Acquisitions by transfer without exchange of funds 407
Statement of the Assistant General Manager 407
The Alaska Railroad is not requesting an appropriation but is requesting the approval of the committee for the program of capital improvements and replacements to be financed from income 407
Civil War Centennial Commission (beginning of hearings) 1113
Activities of the Commission 1116
Analysis by activity 1113
Planning the commemoration 1113
Appropriations and budget estimate, 1963, 1964, 1965 1113
Budget justification 1113
Itemization of estimate 1114
Statement by Hon. Carl Elliott, Representative from the State of Alabama, in support of Civil War Centennial Commission's request for funds for fiscal year 1965 1122
Statement of Dr. Allan Nevins, Chairman 1121
Statement of Dr. James I. Robertson, Jr., Executive Director 1214
Statement of Hon. Fred Schwengel, Vice Chairman 1116
Coal Research, Office of (beginning of hearings) 646
Analysis by activities 647
Budget estimates 646
Budget justification 648

Page
Coal Research, Office of—Continued
Contract research 647
Contracts awarded by the Office of Coal Research 657, 658
Project schedule 647
Projects under contract (December 31, 1963) 649, 650, 651
Projects expected to be awarded contracts during remainder of year 1964 651, 652
Projects likely to be awarded contracts in fiscal year 1965 652, 653
Director's statement 654, 655
Highlight statement 646
Itemization of estimate 654
Salaries and expenses 647
Amendment requested 1592
Summary of increases and decreases, 1965 647
Statement of Dr. George L. Haller, vice president of the General Electric Co., reporting on progress of work on Project Bootstrap, and the potentials of electrical processing through corona chemistry and its application for their work for the Office of Coal Research 1457
Corregidor-Bataan Memorial Commission and Veterans' Administration (beginning of hearings) 1164
The Corregidor-Bataan Memorial Commission was created by an act of the Congress in 1953 (Public Law 193, 83d Cong., approved Aug. 5, 1953). Its mission is to plan a memorial to be erected on Corregidor Island to commemorate veterans who fought under the American flag in the Pacific area during World War II 1165
Administrative expenses 1165
Developing the memorial study, in cooperation with the Philippines National Shrine Commission, for the location and erection of the memorial 1165
Preparing policy directives to guide the Veterans' Administration in carrying out all phases of the authorized construction 1165
Carrying out necessary liaison with the Veterans' Administration during the contractual and construction phases 1165
Developing plans for raising additional funds by public subscription 1165
Budget request 1164
Justification statement for 1964 supplemental estimate 1166
Justification statement for 1965 budget estimate 1165
Justification statement for Veterans' Administration construction 1167
Statement of prior appropriations and expenditures 1173
Cost of the memorial project 1174
Combined cost of memorial project 1175
Philippine Government contribution 1176
Coordination between Philippines and United States Government 1176
Planning and technical services 1170, 1173
Program and financing 1165, 1168
Planning the memorial (costs, obligations) 1165
Planning, design, and supervision 1168
Construction 1168
Statement by Director 1169
Tasks and responsibilities under Public Law 88-240 1170, 1171, 1172
Federal Coal Mine Safety Board of Review (beginning of hearings) 1157
Activities of the Board 1161
Amendment requested 1607
Analysis by activities 1159
Administration and adjudication (total program costs) 1159
Budget request 1157
Budget justification 1158
Detailed statement 1160
Highlight statement 1163
Salaries and expenses 1159
Statement relating 1963, 1964, and 1965 programs 1159
Justification for personnel compensation 1160
Justification for other obligations 1160
Statement of Federal Coal Mine Safety Board of Review 1161

Page
Fine Arts, Commission of (beginning of hearings) 1307
Analysis by activities 1307
Budget justification 1307, 1308, 1309
Chairman's statement 1309
Itemization of estimate 1309
Number of submissions presented to the Commission of Fine Arts during fiscal years 1961, 1962, 1963 1310
Commission of Fine Arts Act (approved May 17, 1910) 1310
Old Georgetown Act (approved September 22, 1950) 1310
Shipstead-Luce Act (approved May 16, 1930) 1310
Salaries and expenses 1307
Summary of increases and decreases, 1965 1307
Fish and Wildlife Service (beginning of hearings) 689
Commissioner of Fish and Wildlife, Office of 689
Administrative programs 691
Amendment requested 1596
Analysis by activities 690, 691
Budget justification 689
Highlight statement 689
Itemization of estimate 691
Salaries and expenses 689, 690
Statement of the Commissioner 691
Summary of increases and decreases, 1965 690
Commercial Fisheries, Bureau of 699
Administrative expenses, general 776
Amendment requested 1596
Analysis by activity 778
Analysis by activity (total funds) 780
Departmental expenses 777, 778, 781
Travel cost and general expenses 781
Regional office expenses 777, 779
Budget justification 776
Highlight statement 776
Itemization of estimate 780
Purchase of motor vehicles 907
Justification 907
Summary of increases and decreases, 1965 777
Construction 763
Analysis by activities 763
Columbia River fishery facilities 763
Fishery facilities 763
Budget justification 763
Columbia River fishery facilities 769
Analysis by activities 769
Hatchery facilities 769
Operational studies 769
Program supervision and inspection 769, 770
Stream improvements 769
Screening diversions 769
Itemization of estimate 770
Fishery facilities 764, 766
Analysis by activities 764
Construction of a Shellfisheries Research Center at Milford, Conn 764, 770
Construction of a Biological Research Laboratory for the tropical Atlantic area 764
Construction of an exploratory fishing vessel as a replacement for the *Oregon* (first phase) 764, 765, 771
Equipment for fishery research vessel for use in the North Pacific and Bering Sea 764, 766, 772
Construction of fishing vessels 774
Highlight statement 774
Director's statement 728
General statement regarding construction 763

Fish and Wildlife Service—Continued
Commercial Fisheries, Bureau of—Continued
Page
Fishery loan fund 785
Administrative expenses 786
Administrative expense limitation 786
Highlight statement 785
Itemization of estimate 787
Status of fishery loan fund cases 786
Management and investigations of resources 703
Amendment requested 1593
Analysis by activities 709, 710
Management 709
Marketing and technology 709
Research 709
Research on fish migration over dams 709
Fishing vessel mortgage insurance 709, 759
Columbia River fishery facilities 709, 758
Analysis by activities (total funds) 710
Budget justification 703
Highlight statement 704
Itemization of estimate 727
Purpose and need for supplemental funds 746, 748
Statement of the Director 728
Summary of increases and decreases, 1965 707
Columbia River fishery facilities 726
Fishing vessel mortgage insurance 726
Management 710
Enforcement and administration of international convention acts and regulations 710
Enforcement of sockeye salmon, Northern Pacific halibut, North Pacific fisheries, Northwest Atlantic fisheries, Eastern Pacific tuna fisheries, fur seal, and whaling convention acts 710
Marketing and technology 708, 711
Analysis by subactivity 711
Economics 711
Exploratory fishing and gear development 711, 712
Market news 711, 713
Statistics 711, 713
Technology 711, 713, 714, 715
Foreign fisheries and trade 711, 715, 716
Education and market development 711, 716
Additional funds available under the Saltonstall-Kennedy program (table) 717
Research 708, 717
Analysis by subactivity 717
Coastal and offshore research 717
Inland fisheries 717, 723
Shellfish 717, 723
Designing fish protective devices 717, 724
Employees' compensation fund payments 717, 725
Pesticide research 746
Purpose and need for supplemental funds 746
Justification 747
Program and financing 748
Research on fish migration over dams 708, 725
National oceanographic program 699
Accomplishments under the program 699
Appropriation, activity, and subactivity 703
Oceanography programs with increases 744
Coastal and offshore research 744
North and Central Pacific oceanography 744
North Atlantic and gulf oceanography 744
Cooperative oceanographic programs 722, 744
Shellfish 744
Exploratory fishing and gear research 744
Biological oceanography 700

Page

Fish and Wildlife Service—Continued
Commercial Fisheries, Bureau of—Continued
National oceanographic program—Continued
Instrumentation 701
Physical and chemical oceanography 699
Operation and maintenance of new facilities 724
Shellfish culture and its application (oceanography) 724
Requirements in fiscal year 1965 701
Funds necessary to operate and maintain several new research vessels and laboratories; a new ship and laboratory at La Jolla, Calif., a new ship and laboratory at Seattle, Wash., new ships in the Gulf of Mexico and in Hawaii 701
Research programs in fish physiology and behavior, serology, taxonomy, plankton studies, biological and physical oceanography, and exploratory fishing 701
New programs, including detailed, ocenaographic studies in the eastern tropical Pacific, in the trade wind zone of the Central Pacific, and in coastal and offshore areas on the gulf of Alaska; also new studies on the diseases of oysters 701
Construction funds for research vessels and shoreside facilities; funds for outfitting a new research vessel 701
Pribilof Islands, administration of 781, 784
Analysis by activities 783, 784
Budget justification 781
Highlight statement 782
Itemization of estimate 785
Summary of increases and decreases, 1965 783
Special foreign currency program 759
Analysis by activities 760, 761
Marketing and technology 760, 761
Research 760, 761
Coastal and offshore research 761, 762
Budget justification 760
Highlight statement 760
Itemization of estimate 762
Tabulation of programs to be conducted with the foreign currencies by country 761
Statement showing effect of budget reductions set forth in House Document No. 240, March 9, 1964 1566
Sport Fisheries and Wildlife, Bureau of 800
Administrative expenses, general 896
Analysis by activities 897
Departmental expense 897, 898
Regional office expense 897, 898
Analysis by activities (total funds) 897
Budget justification 896
General administrative services program 899
Estimate for executive direction and general administrative services by organizational units (table) 900
Financing from permanent indefinite funds, transfer appropriations and advances in reimbursements, 1965 (table) 900
Highlight statement 896
Itemization of estimate 900
Purchase of motor vehicles, aircraft 906, 907
Justification 907
Summary of increases and decreases, 1965 897
Construction 841
Analysis by activities 842
Sportfish facilities 842, 843
Fish hatchery facilities 843
Fishery research facilities 843
Wildlife facilities 844
Wildlife refuges 844, 845
Wildlife research facilities 846

| | Page |
|---|---|
| Sport Fisheries and Wildlife, Bureau of—Continued | |
| Director's statement | 823 |
| Management and investigation of resources | 801 |
| Analysis by activities (direct appropriation) | 802 |
| Management of fishery resources | 802 |
| Extension and training | 802 |
| Fishery research | 802 |
| Administration of wildlife resources | 802 |
| Control of predatory animals and injurious rodents | 802 |
| Wildlife research | 802 |
| Soil and moisture conservation | 802 |
| River basin studies | 802 |
| Analysis by activities (total funds) | 803 |
| Budget justification | 800 |
| Highlight statement | 800 |
| Itemization of estimate | 847 |
| Summary of increases and decreases, 1965 | 801 |
| Administration of wildlife resources | 801, 809 |
| Enforcement of Migratory Bird and Lacey Acts | 801, 811 |
| Wildlife refuges | 801, 809 |
| Control of predatory animals and injurious rodents | 813 |
| Protection of livestock and game | 814 |
| Protection of people | 815 |
| Protection of structures and facilities | 816 |
| Extension and training | 806 |
| Technical assistance in sport fishery management | 806, 808 |
| Better fishing from hatchery fish | 807, 808 |
| Cooperative fishery units | 807, 808 |
| Fishery management services provided to Federal areas and Indian reservations | 808 |
| Fishery research | 808 |
| Fish-pesticide relationships | 808 |
| Genetics and selective breeding | 809 |
| Husbandry methods | 809 |
| Management of fishery resources | 804 |
| Fish hatcheries | 804 |
| Operation of new hatcheries and new facilities constructed at existing hatcheries | 804, 805 |
| Enforcement of black bass law of 1926, as amended (16 U.S.C. 851–856) | 806 |
| River basin studies | 820, 840 |
| Available and estimated fund | 840 |
| Financing the river basin studies program | 822 |
| Itemization of estimate | 822 |
| Wetlands preservation program | 820 |
| Surveys of water-use projects | 821 |
| Small watershed program | 821 |
| Urban planning assistance program | 821 |
| Followup program | 821 |
| Soil and moisture conservation | 820 |
| Continue the work in progress | 820 |
| Initiate work on additional refuges which has long been delayed | 820 |
| Plan and initiate work on recently acquired areas | 820 |
| Wildlife research | 816, 828, 837, 840 |
| Waterfowl management | 816 |
| Other migratory bird research | 817 |
| Upland wildlife | 817 |
| Pesticide-wildlife relationships | 817, 837 |
| Diseases and parasites | 818 |
| Control methods | 819 |
| Classification, distribution, and life history | 819 |
| Cooperative wildlife research units | 819 |

Sport Fisheries and Wildlife, Bureau of—Continued
Director's statement—Continued Page
Migratory bird conservation account 903
Advances to migratory bird conservation account 904
Anslysis by activities (direct appropriation) 904
Acquisition of refuges and other areas 904
Analysis by activities (total funds) 904
Budget justification 903
Highlight statement 903
Itemization of estimate 905
Summary of increases and decreases, 1965 903
Statement showing effect of budget reductions set forth in House Document 240, March 9, 1964 1567
Statements of congressional witnesses:
Letter of February 25, 1964, written on behalf of the Oklahoma Department of Wildlife Conservation, enclosing proposal for a commercial fisheries research project. Letter signed by the Honorables Mike Monroney, J. Howard Edmondson, Page Belcher, Ed. Edmondson, Carl Albert, Tom Steed, John Jarman, and Victor Wickersham 738
Letter of February 26, 1964, and enclosures, from Hon. Clifford P. Case, concerning surf clam research proposal 752
Letter of February 24, 1964, from Hon. Harrison A. Williams, Jr., enclosing letter of February 12, 1964, from William J. Kleb, general manager of the F. H. Snow Canning Co., Wildwood, N.J., concerning survey and research for the surf clam industry 757
Proposal for lobster research was submitted by Hon. Margaret Chase Smith, Hon. Leverett Saltonstall, and Hon. Norris Cotton, on behalf of the Atlantic States Marine Fisheries Commission 787
Letter of February 24, 1964, to Hon. Norris Cotton from Associate Professor Philip J. Sawyer of the University of New Hampshire, Durham, asking support of an amendment to the budget concerning lobster research 792
Letter of February 17, 1964, from Hon. Mike Mansfield, advocating the improvement and development of the Bozeman, Mont., Federal Fish Hatchery 882
Letter of February 21, 1964, from Hon. J. W. Fulbright, requesting funds for the general renovation and modernization of the physical plant of the Corning, Ark., National Fish Hatchery 884
Statement from Hon. John L. McClellan, concerning construction of national fish hatcheries at Greers Ferry, Corning, and Mammoth Spring National Fish Hatcheries, Ark 885
Letter of February 19, 1964, from Hon. John Sparkman, and letter of February 26, 1964, from Hon. Lister Hill, requesting funds for construction work at Marion National Fish Hatchery, Ala 887
Request from Hon. Frank E. Moss for information concerning needs at Springfield National Fish Hatchery, Utah 889
Letter of February 18, 1964, from Hon. A. Willis Robertson, urging continued improvement at the Wytheville and Harrison Lake National Fish Hatcheries in Virginia 890
Letter of February 25, 1964, from Hon. Olin D. Johnson, concerning redevelopment program at the Cheraw National Fish Hatchery, S.C 892
Letter of February 19, 1964, from H. G. Wilm, commissioner, State of New York Conservation Department, concerning construction of new and enlarged buildings at the Federal fish hatchery at Cortland, N.Y 893
Statement from Hon. Wallace F. Bennett concerning development of the Ouray National Wildlife Refuge in Utah; also requesting funds to rebuild the road from Brigham City, Utah, to the Bear River Migratory Bird Refuge 895

Sport Fisheries and Wildlife, Bureau of—Continued
Statements of congressional witnesses—Continued Page
Hon. J. Caleb Boggs stated his support of the proposal to undertake surf clam research and urged appropriation of money to undertake this vitally needed research as there is a definite threat of depletion of the clambeds 1391
Hon. Ernest Gruening urged the committee to provide the Bureau of Commercial Fisheries with funds to initiate large-scale feasibility studies to strengthen the research program and to establish markets for specialized fish protein concentrate products 1408
Hon. Frank E. Moss stated that additional funds could be used to good advantage at the Ouray National Wildlife Refuge in the Uintah Basin of eastern Utah 1413
Hon. Laurence J. Burton stated his support for additional funds for the Bear River Migratory Bird Refuge road and the Ouray National Wildlife Refuge 1434
Hon. Lee Metcalf suggested the committee get the Department's views about the disparity in the funding of two similar programs in wildlife research by the Bureau of Sport Fisheries and Wildlife 1442
Hon. Thomas J. McIntyre expressed his support to amend Interior's appropriation bill to include funds for research by the Bureau of Commercial Fisheries on lobsters 1449
The following statements were filed with the committee for inclusion in the record:
Mrs. David Wallace, director, Oyster Institute of North America, in support of the budget dealing with shell fisheries research and the MSX brood resistance disease research 1534
William Kleb, chairman, Eastern Sea Clam Packers Committee of Oyster Institute, setting forth the dire need of research and exploration of the MSX and sea clam research 1535
Hon. Harrison A. Williams, Jr., urging additional appropriations for the Atlantic Marine Game Fish Research Center at Sandy Hook, N.J 1543
Richard C. Wolff, concerning Federal marine research appropriations 1544
Joint letter from the steering committee of New York congressional delegation regarding an additional appropriation to the construction budget; also for renovating the Federal fish hatchery at Cortland, N.Y 1546
Letter signed by the following:
Hon. Emanuel Celler, chairman.
Hon. Jacob K. Javits.
Hon. James J. Delaney.
Hon. William E. Miller.
Hon. Leo W. O'Brien.
Hon. Steven B. Derounian.
Philip A. Douglas, executive secretary, Sport Fishing Institute, concerning sound fish conservation practices in sport fishing 1547
C. R. Gutermuth, vice president, Wildlife Management Institute, re migratory bird conservation account for the purchase of wet lands and other habitat 1549
Louis S. Clapper, National Wildlife Federation, in support of the emergency waterfowl wetlands acquisition program 1550
Alex Radin, American Public Power Association, concerning fish migration over dams 1552
Forest Service (beginning of hearings) 916
Purpose statement 916
Accelerated public works program 923, 959, 960
Summary of major accomplishments, Federal projects, by regions, fiscal years 1963 and 1964 960
Financing by regions, fiscal years 1963–64 960, 961
Summary of major accomplishments, State cooperative projects, by regions, fiscal years 1963 and 1964 962
State matching funds, accelerated public works grant-in-aid projects 962

| | Page |
|---|---|
| Forest Service—Continued | |
| Acquisition of lands for national forests, special acts | 1006 |
| Budget justification | 1006 |
| Congress has enacted laws authorizing appropriations from receipts of specified national forests for purchase of lands to minimize erosion and flood damage | 1006 |
| Forest and act | 1006 |
| Cache (Utah), act of May 11, 1938, as amended | 1006 |
| Uinta-Wasatch (Utah), act of August 26, 1935, as amended | 1006 |
| Toiyabe (Nevada), act of June 25, 1938, as amended | 1006 |
| Angeles (California), act of June 11, 1940 | 1006 |
| Cleveland, San Diego County, Calif., act of June 11, 1940 | 1006 |
| San Bernardino-Cleveland, Riverside County, Calif., act of June 15, 1938, as amended | 1006 |
| Sequoia (California), act of June 17, 1940 | 1006 |
| Project statement | 1006 |
| Wasatch National Forest | 1007 |
| Budget justification | 1007 |
| Project statement | 1008 |
| Weeks Act purchases | 944, 972, 975 |
| Chattahoochee National Forest, Ga | 944 |
| Ouachita National Forest, Okla. and Ark | 944 |
| Status of the Weeks law purchase program | 973 |
| Administrative provisions: | |
| Amendment requested | 1606 |
| Increased pay costs (Public Law 87-793) | 958 |
| Purchase of motor vehicles | 1010 |
| Changes in language | 1010 |
| Justification of additional vehicles | 1012 |
| Justification of replacements | 1011 |
| Replacement and addition of aircraft | 1012 |
| Assistance to States for tree planting | 1008 |
| Budget justification | 1008 |
| Progress of the planting program | 1009 |
| Project statement | 1009 |
| Assistant Secretary of Agriculture, statement | 920 |
| Chief, Forest Service, statement | 921 |
| Forest land management | 928 |
| National forest protection and utilization | 927 |
| Amendment requested | 1602 |
| Timber resource management | 932 |
| Sales administration and management | 932 |
| Reforestation and stand improvement | 932 |
| Recreation-public use | 933, 963 |
| Operation and maintenance | 933 |
| Rehabilitation of facilities | 933 |
| Construction of new recreation facilities | 933, 964 |
| Recreation management plans | 934 |
| Visitor information service | 934, 963 |
| Wildlife habitat management | 934 |
| Improvement of wildlife range | 934 |
| Water developments | 934 |
| Fish stream improvement | 934 |
| Lake improvement | 934 |
| Range resource management | 934 |
| Management | 934 |
| Range revegetation | 935 |
| Range improvements | 935 |
| Soil and water management | 935 |
| Standard soil surveys and reconnaissance surveys | 936 |
| Comprehensive watershed plans | 936 |
| Technical watershed protection specifications and soil management service | 936 |
| Multiple-use surveys | 936 |
| Improve hydrologic functioning, water quality, soil stability, reduce flood potential | 936 |

Forest Service—Continued
Forest land management—Continued
National forest protection and utilization—Continued Page
Mineral claims, leases and special uses 936
Control of occupancy and mineral operations 936
Review and process of mineral applications 936
Detection and elimination of unauthorized use of mining claims
Land classification, adjustments and surveys 937
Land exchange and ownership adjustments 938
Land line location 938
Mapping 939
Forest fire protection 939, 968
Fire prevention 940
Fire detection 940
Fire attack forces 940
Air operations 940
Fuel modification 940
Equipment development 940
Studies, surveys, plans, and special training 940
Structural improvements for fire and general purposes 940
Construction of dwellings and barracks 940
Fire lookouts 940
Service and storage buildings 940
Airstrips and helispots 940
Betterment of existing structures 940
Water and sewage systems 940
Site acquisition 940
Communication facilities 940
Major structures:
Arcadia Equipment Development Center, California 940
Redmond Airbase, Oreg 940
Gifford Pinchot Conservation Institute, Pennsylvania 940, 971
Planning and design: Regional office and research station headquarters, Philadelphia 940
Payments to employees' compensation fund 940
Fighting forest fires 941
Insect and disease control 941, 943
White pine blister rust 941, 943
Other pest control 942
Budget justification 932
Project statement 929
Summary of increases and decreases, 1965 928
Forestry research program 976
Amendment requested 1605
Forest and range management research 946
Timber management research 944
Watershed management research 945, 978
Range management research 946
Wildlife habitat research 947, 985
Forest recreation research 948
Forest protection research 998
Forest fire research 948, 999
Forest insect research 949, 981
Forest disease research 950
Forest products and engineering research 951
Forest products utilization research 951
Forest engineering research 952
Forest resource economics research 952
Forest survey 952, 991
Forest products marketing research 953
Forest economics research 953
Forest research construction 954, 991
Forest Products Laboratory, Madison, Wis 1051
Forest Sciences Laboratory, Missoula, Mont 992
Silviculture Research Laboratory, Sewanee, Tenn 996

Page
Forest roads and trails ..... 1001
Amendment requested ..... 1605
Analysis of cash requirements ..... 1002
Analysis of cash requirements by activities ..... 1001
Construction of roads and trails ..... 1001
Maintenance of roads and trails ..... 1001
Authorizations for appropriations ..... 1002
Budget justification ..... 1001
General forestry assistance ..... 957
State and private forestry cooperation ..... 928
Cooperation in forest fire control ..... 955, 1025
Cooperation in forest tree planting ..... 956
Cooperation in forest management and processing ..... 957
Miscellaneous statements and justifications ..... 1009
Brush disposal ..... 1013
Cooperative range improvements ..... 1010
Cooperative work, Forest Service (trust fund) ..... 1017–1020
Forest fire prevention ..... 1014
Payment to counties, national grasslands ..... 1015
Payment to Minnesota (Cook, Lake, and St. Louis Counties) from the national forests fund ..... 1015
Payment to school funds, Arizona and New Mexico ..... 1016
Payments to States, national forests fund ..... 1016
Restoration of forest lands and improvements ..... 1015
Roads and trails for States, national forests fund ..... 1013
Working capital fund, Forest Service ..... 1017
Operating results and financial condition ..... 1017
Statements of congressional witnesses:
Statement of Hon. John Stennis, in support of the Forest Soil and Hydrology Laboratory, Oxford, Miss ..... 912
Letter of February 21, 1964, to Hon. John C. Stennis, from Tom DeWeese, chairman for Mississippi of the Southern Pine Industry Committee, Philadelphia, Miss., concerning research projects in connection with the biology and control of insects attacking wood, and the protection of wood from decay ..... 913
Letter of February 20, 1964, from Hon. Stuart Symington, and Hon. Edward V. Long, requesting that an area known as the Markham Springs tract, which lies within the Clark National Forest in southeast Missouri, be purchased by the Forest Service ..... 974
Letter of February 26, 1964, signed by Hon. Stuart Symington and Hon. Edward V. Long, requesting funds to undertake cooperative wildlife habitat research in Missouri and other Midwestern States ..... 985
Statement from William E. Towell, director of the Missouri Conservation Commission, recommending that funds be appropriated for the Forest Service research programs ..... 986
Letter of February 20, 1964, to Hon. E. L. Bartlett from Hon. B. Frank Heintzleman, urging that strong support be given to increased funds for forest research ..... 988
Letter of February 21, 1964, from Hon. Mike Mansfield, enclosing letter of February 17, 1964, from Dean Arnold W. Bolle, School of Forestry at Montana State University, Missoula, Mont., discussing the proposed forestry research laboratory on the Montana State University campus, and the appropriation for forestry research in Montana ..... 992
Letter of February 27, 1964, from Hon. Al Ullman concerning the plans for the research program at La Grande, Oreg ..... 996
Letter of February 18, 1964, from Hon. Albert Gore, requesting the subcommittee to provide funds to construct a silviculture laboratory at the University of the South at Sewanee, Tenn ..... 996
Statement of Hon. Clinton P. Anderson requesting construction funds for a forest science laboratory at Albuquerque, N. Mex ..... 1053
Statement of Hon. Gaylord Nelson urging approval of funds for expansion of the Forest Products Laboratory at Madison, Wis ..... 1054

General forestry assistance—Continued
Statements of congressional witnesses—Continued
Page
Letter of February 20, 1964, from Hon. Franklin D. Roosevelt, Jr., Under Secretary of Commerce, regarding importance of Forest Products Laboratory at Madison, Wis 1056
Statement of Hon. Wallace F. Bennett urging increased appropriations for the Forest Service, particularly for watershed management research and land acquisitions for watershed protection 1057
Letter of February 24, 1964, from Hardy Glascock, Jr., forest counsel of the Western Forestry & Conservation Association urging approval of the Forest Service budget 1061
Statement by assistant commissioner, Kentucky Department of Conservation, urging increased appropriations for timber management research 1061
Letter of February 18, 1964, from Paul E. Tilford, executive secretary of the National Arborist Association, urging that adequate provision in the Forest Service budget be made for research on Dutch elm disease 1063
Letter of February 19, 1964 from Oliver D. Diller, chairman, Wooster, Ohio, Citizens Dutch Elm Disease Control Committee, urging approval of funds for research on Dutch elm disease 1063
Statement of Charles H. Lewis, Jr., Louisiana Forestry Association, regarding funds to adequately staff the Alexandria, La., Forest Products Research Laboratory 1064
Statement of Warren E. Dietrich, Louisiana Forestry Association, urging staffing of Alexandria, La., Forest Products Research Laboratory at Alexandria, La 1065
Letter of February 24, 1964, from Lynn Sandberg, chairman, Upper Peninsula Committee on Area Problems, Michigan, supporting the budget estimate for Forest survey 1066
Letter of February 3, 1964, from Donald Linville, executive secretary, American Hardboard Association, supporting the budget estimate for expansion of the Forest Products Laboratory at Madison, Wis 1067
Hon. Wayne Morse submitted a statement concerning the program for the national forests and requested an effort be made to provide necessary increases for all the various proposals in order to more nearly approximate the schedules that were indicated in the program. He stated the proposed increases in forest research are not substantial, and enclosed letters from various soil conservation districts dealing with the need for additional forest research funds; he stated the need for construction of a Forest Service laboratory at La Grande, Oreg., is most urgent; urged the committee to give careful consideration to the need for forest management and watershed research 1366
Hon. Ernest Gruening submitted a statement concerning the Forest Service budget for the State of Alaska 1394
Hon. Frank E. Moss expressed his satisfaction concerning the resource development item in the budget request for the Forest Service and emphasized strongly that the watershed and range management research projects should be strengthened 1413
Hon. Philip A. Hart requested funds be appropriated for the construction of the Forest Engineering Laboratory at Houghton, Mich., to improve the timber industry and relieve the unemployment in the area 1420b
Hon. George D. Aiken urged the committee to appropriate funds for the establishment of a National Maple Production Research Center in Burlington, Vt., and attached correspondence evaluating the proposal 1428
Hon. Gordon Allott stated his support of funds for the construction of a headquarters office-laboratory for the Rocky Mountain Forest and Range Experiment Station to be built on the campus of Colorado State University at Fort Collins, Colo 1437

General forestry assistance—Continued
Statements of congressional witnesses—Continued Page
Hon. Lee Metcalf stated the budget fails to provide the sustained buildup needed in the development of the national forests and that timber resource activities are lagging and that additional funds would be a prudent investment; stated the budget for cooperative forest fire control, forest management and processing and for general forestry assistance are very modest and that larger amounts can be justified; the Forestry Sciences Laboratory at Missoula, Mont., would speed the research necessary to accomplish improvements in management ..... 1439
Hon. John B. Bennett urged that funds be made available for the construction of the Forest Engineering Laboratory, Houghton, Mich., so that the productive program in forest engineering research can be advanced ..... 1455
The following statements were filed with the committee for inclusion in the record:
William T. Jobe, Jr., general counsel, National Lumber Manufacturers Association, re forest products and forest pests control research ..... 1467
Arthur F. Muschler, technical director, Edward Hines Lumber Co., concerned with forest products research, Forest Products Laboratory in Madison, Wis ..... 1471
Hon. Everett R. Dirksen regarding need for research program at Southern Illinois University ..... 1472
Dr. William J. Tudor, Southern Illinois University, regarding increased research program ..... 1475
Hon. John Stennis regarding a laboratory at Oxford, Miss ..... 1479
Hon. Charles M. Teague concerning the national forests, fire problems and flood control ..... 1479
Robert T. Radford, president, Watershed Fire Council of Southern California, concerning a fire laboratory at Riverside, Calif., and the fire protection needs of southern California ..... 1480
Austin H. Wilkins, forest commissioner of the State of Maine concerning State and Federal cooperative programs, particularly forest fire control, seedling production, cooperative forest management and forest tree planting ..... 1502
Donald H. Gott, executive director, American Walnut Manufacturers' Association, concerning construction of wood utilization, timber management, and marketing research laboratories at Carbondale, Ill., and expansion of the Laboratory at Madison, Wis ..... 1506
Richard D. Behm, marketing specialist, regarding walnut timber production, and additional research ..... 1508
Ralph C. Wible, State forester, Department of Forests and Waters, Commonwealth of Pennsylvania, concerning Federal-State forestry cooperative programs ..... 1509
William E. Welsh, executive director, National Reclamation Association, concerning improvement of recreational areas on national forest lands; strengthening of the program in watershed management research ..... 1511
Theodore B. Pomeroy of the American Forestry Association, regarding forest insect and disease research, forest products utilization, strengthen fire protection facilities in Alaska ..... 1514
Hon. William Proxmire concerning research benefits of the Forest Products Laboratory, Madison, Wis ..... 1521
William Ross Brown, Jr., Forest Farmers Association, concerned with water and hydrology laboratories and forest watershed management research ..... 1523
Herman E. Baggenstoss, regional vice president, Forest Farmers Association, concerning silviculture research laboratory, Sewanee, Tenn ..... 1525
H. E. Ruark, director, Georgia Forest Research Council, Macon, Ga., regarding Southern Forest Fire Laboratory ..... 1526
C. A. Roberts, American Turpentine Farmers Association, Lake Butler, Fla., concerning strengthening gum naval stores research at the naval stores and Timber Production Laboratory at Olustee, Fla ..... 1529

General forestry assistance—Continued
The following statements were filed with the committee for inclusion in the record—Continued
Robert F. Lederer, executive associate, American Association of Nurserymen, relating to State and private forestry cooperation, and in behalf of the tree planting program — Page 1531
Hon. Gale W. McGee concerning management of the Wyoming Elk Range — 1542
Joint letter from Hon. Warren G. Magnuson and Hon. Henry M. Jackson urging additional funds for forest hydrology laboratory at Wenatchee, Wash — 1552
Hon. Frank Church urging acquisition of forest lands in Idaho — 1554
Joint statement of Hon. Hubert H. Humphrey and Hon. Eugene J. McCarthy, urging funds for forest research in the northern Great Lakes region — 1555
Earl Hartley, executive secretary, Western Council of Lumber & Sawmill Workers, in support of appropriations for the Forest Service — 1558
W. A. Williams, Jr., National Association of Soil and Water Conservation Districts, concerning forest land management — 1559
Geological Survey (beginning of hearings) — 421
Director's statement — 449
Surveys, investigations, and research — 421, 451
Amendment requested — 1585
Analysis by activities — 424
Conservation of lands and minerals — 423, 424
General administration — 423, 424
Geologic and mineral resource surveys and mapping — 422, 423
Marine geology and hydrology — 422, 424
Soil and moisture conservation — 423, 424
Special-purpose buildings — 423, 424
Topographic surveys and mapping — 422, 424
Water resources investigations — 422, 424
Authorization for the purchase of 50-passenger motor vehicles for replacement only — 423
Budget justification — 421
Financing of Geological Survey programs (table) — 422
Highlight statement — 421
Itemization of estimate — 425
Summary of increases and decreases, 1965 — 423
Conservation of lands and minerals — 442, 474
Analysis by subactivity — 442
Connaly Act compliance — 446
Mineral classification — 444
Supervising mining leases — 443
Supervising oil and gas leases — 442
Waterpower classification — 445
General administration — 447
Comparison of funds for executive direction and administration, relative to the entire program of the Geological Survey (table) — 447
Geologic and mineral resources surveys and mapping — 431
Analysis by subactivity — 432
Field and laboratory projects in economic geology — 432, 433
Field and laboratory projects in regional geology — 432, 433, 434
Field and laboratory projects in experimental geology — 432, 434, 435
Field and laboratory projects in engineering geology — 432, 435
Marine geology and hydrology — 436, 450, 464
Long-range plans — 436
Soil and moisture conservation — 441
Evaluation of specific sites as possible locations for water supply — 441
Research in arid-lands hydrology such as erosion and sedimentation principles, stability of river channels, effects of land treatment measures, and relations between rainfall, runoff, ground water, sediment transport, and other hydrologic factors — 441

Geological Survey—Continued
Surveys, investigations, and research—Continued Page
Special-purpose buildings 448
Highlight statement 449
Itemization of estimate 448
Preliminary design of a Geological Survey building in Washington, D.C 448, 475
Procurement of site and building plan progress 475
Nuclear Research Laboratory, Denver Field Center 448, 475, 476
Topographic surveys and mapping 426, 449, 453, 462
Analysis by subactivity 427
Map revision and maintenance 427, 428
Small-scale and special mapping 427, 429
Standard quadrangle mapping 427
National Atlas of the United States 453 to 461
Water resources investigations 438, 450, 464, 466
Analysis by subactivities 440, 441
Employee compensation payments 440
Federal program 438
Federal-State program 440
Ground-water investigations 440, 472
Long-range plan 466
Phreatophytes eradication 467
Gila River project, San Carlos Indian Reservation, Ariz. 467, 468
Quality of water investigations 464
Surface-water investigations 440
Statement showing effect of budget reductions set forth in House Document 240, March 9, 1964 1566
The following statements were filed with the committee for inclusion in the record:
William E. Welsh, executive director, National Reclamation Association, concerning funds for basic data and analysis for resources surveys, investigation and research 1512
Charles F. Schwan, Jr., director, Washington office, the Council of State Governments, concerning funds for the water quality program 1542
Indian Affairs, Bureau of (beginning of hearings) 135
Administrative provisions 222
Purchase of motor vehicles; 175 for replacement; 41 police-type vehicles to fulfill the Bureau's responsibility in the area of law and order; 25 buses to transport pupils to and from school 222
Distribution of 41 new police-type cars and 25 school buses 222
Explanation of language change for passenger-carrying motor vehicles 222
Commissioner's statement 137
Comparative statement of 1964 appropriations and 1965 budget estimate 136
Construction 178
Amendment requested 1571
Analysis by activity 179
Buildings and utilities 179
Irrigation systems 179
Budget justification 178, 179
Buildings and utilities 179
Conversion of Tongue Point naval installations in Oregon to a boarding high school for Indian children 183, 189, 197
Program, fiscal year 1961 192
Program (rehabilitation work) fiscal year 1961 194
Program, fiscal year 1962 193
Program, fiscal year 1963 194, 195
Program, fiscal year 1964 195, 196
Summary of projects by State, new construction, fiscal year 1965 180
Summary of projects by States, fiscal year 1964 185
Summary of projects by States, other than Navajo-Hopi, fiscal year 1964 184

Indian Affairs, Bureau of—Continued
Construction—Continued Page
Irrigation systems 179, 180
Itemization of estimate 182
Summary of projects 181, 182
Road construction 208
Budget justification 208, 209
Contract authorization and liquidation program, fiscal years years 1963, 1964, and 1965 208
Liquidation of contract authorization (cash program) 209
Obligations 209
Federal-Aid Highway Act, 1963, 1964, 1965 209
Federal-aid highway roads, area budget classification, breakdown, 1965 211
Itemization of estimate 212
Status of cash appropriation for liquidation of contract authorization 209
Education and welfare services 140
Amendment requested 1569
Analysis by activities 142
Budget justification 140
Educational assistance, facilities, and service 142
Analysis by subactivities 142
Assistance to pupils in non-Federal school 143, 151
Federal facilities 144
Adult education 146
Maintaining law and order 149, 155
Activity 149
Itemization of estimate 150
Reservations where Federal Government finances law and order, fiscal years 1964, 1965 156
Relocation and adult vocational training 149
Analysis by subactivity 149
Adult vocational training 149
Relocation services 149
Welfare and guidance services 148
Analysis by subactivity 148
General assistance 148
Other welfare assistance 148
Child welfare 148
Housing 149
Social services 149
General administrative expenses 219
Amendment requested 1573
Analysis by activities 219
Departmental office 219
Field offices 219
Budget justification 219
Itemization of estimate 220
Summary of increases and decreases, 1965 219
Menominee educational grants 221
Analysis by activities 221
Budget justification 221
Status of program 221
Resources management 158
Amendment requested 1570
Analysis by activity 159
Budget justification 158
Highlight statement 158
Itemization of estimate 172
Summary of increases and decreases, 1965 158
Agricultural and industrial assistance 162
Analysis by subactivity 162
Agricultural extension 163
Credit operations 163, 173
Economic development 164, 173
Development of Indian arts and crafts 167

Indian Affairs, Bureau of—Continued
Resources management—Continued Page
Fire suppression 161, 173
Status of program 162
Forests and rangelands 160
Analysis by subactivity 160
Maintenance of roads 166, 175
Area budget classification breakdown of work plan, 1965 167
Management of Indian trust property 168
Analysis by subactivity 168
Land management 168
General trust services 168, 169
Employee compensation payments 168, 169
Operation, repair, and maintenance of Indian irrigation systems 170
Itemization of estimate 172
Summary by subactivity 172
Repair and maintenance of building and utilities 169, 175
Soil and moisture conservation 165, 174
Major program features 166
Land use investigations and planning 166
Application of measures 166
Soil stabilization and improvement 166
Water management 166
Revolving fund for loans 176
Analysis of Government equity 178
Itemization of estimate 176
Financial condition 177
Program and financing 177
Justification 176
Summary of sources and application of funds 177
Statement showing effect of budget reductions set forth in House Document 240, March 9, 1964 1566
Statements of congressional witnesses:
Hon. Wayne Morse submitted a comprehensive statement, with supporting data, urging funds be appropriated for the Tongue Point Indian School at Tongue Point, Oreg 1364
Hon. Ernest Gruening urged the committee to appropriate the necessary funds for new construction of facilities for schools; supported the need for funds to develop Indian arts and crafts and vocational education training, which will pay dividends to Alaska 1406
The following statements were filed with the committee for inclusion in the record:
Theodore B. Hetzel, Friends Committee on National Legislation, concerning Alaskan Indian community social and economic affairs, their education, housing, and sanitation 1516
Hon. George McGovern, concerning appropriation for the Pine Ridge Reservation to be used for law enforcement 1541
Dr. I. Lawrence Kerr, American Dental Association, urging increased funds for the dental program, Indian Health Service 1564
Indian Claims Commission (beginning of hearings) 1104
Analysis by activities 1105
Hearing and adjudication of Indian claims 1105
Budget justification 1104
Purpose statement 1104
Detailed statement 1105
Public Law 88-168, effective November 4, 1963, to remedy the situation of impecunious Indian claimants to present their cases 1106, 1107
Supplement request for an appropriation to activate this act 1107
Object classification 1106
Salaries and expenses 1105
Status of Indian claims 1109
Claims pending, dismissed, and awarded 1110
Summary of increases and decreases, 1965 1105

Page
John F. Kennedy Center for the Performing Arts (beginning of hearings) 1339
Kennedy Center Act 1344
Administration of the Kennedy Center 1346
Budget request 1339
Justification statement 1339
Condensed statement of pledges, cash receipts, and disbursements for the period from inception, April 1, 1959, to February 29, 1964 1360
Financial status 1345
Complete financial statement prepared by accountants, Seltzer and Addabbo (retained in committee files) 1345
Land acquisition 1347
Legislation of the Center 1343
National Cultural Center garage 1355
Economic and feasibility report for plans and preliminary estimate of construction cost for proposed 1,600-car parking facility 1355
Operating expense estimate 1356
Parking revenue estimates 1357
Proposed financing 1357
Proposed program for 1965 1343
Statement of the Chairman of the Board of Trustees 1343
Statement of income and expenses 1348
Schedules A through J 1348
Land Management, Bureau of (beginning of hearings) 51
Administrative provisions 118
Request for purchase of seven passenger vehicles for use in administration of public grazing lands, forest management, and fire suppression 118
Request for purchase of one aircraft for use in Alaska 119
Construction 56, 94
Analysis by activities 95
Access roads 57, 95
Buildings: To initiate construction of fire control facilities at Anchorage, Alaska 56, 95, 98
Sanitation and protection facilities 96, 98
Explanation of proposed program 100, 101, 102
Arizona 97, 101
Hualpai Mountains.
Cerbat Mountain.
California: Owens Valley 97, 101
Colorado 97, 101
Five Points Placer.
Drowsy Waters.
Gypsum.
Idaho: Salmon River 97, 101
Montana 97, 101
Madison River.
Locate Creek.
Nevada 97, 101
Red Rock Canyon.
Wildhorse Reservoir.
New Mexico 97, 102
Three Rivers Pictograph.
Santa Cruz Reservoir.
Oregon 97, 102
Deschutes River.
Steens Mountains.
Utah: Canyon Rims 97, 102
Wyoming: Five Springs 97, 102
Survey and design of facilities 97
Budget estimate 95
Itemization of estimate 97, 98

| Land Management, Bureau of—Continued | Page |
|---|---|
| Director's statement | 54 |
| Highlight statement | 52 |
| Management of lands and resources | 53, 55 |
| Analysis by activities | 62 |
| Cadastral surveys | 56, 61 |
| Alaska | 72 |
| Public land States, except Alaska | 72 |
| (1) Development of mineral resources, particularly through oil and gas leasing | 72 |
| (2) Management of timberlands and settlement of timber trespass cases, the identification of tracts for timber sales, timber salvage operations and reforestation | 72 |
| (3) Population and industrial expansion of western towns and cities | 72 |
| (4) Reestablishment of selected corners marking boundaries of the public lands | 72 |
| Fire suppression | 75 |
| Forestry | 61, 67 |
| (*a*) Western Oregon lands | 67 |
| (*b*) Public domain (excluding western Oregon) | 69 |
| Forest management | 70 |
| Forest development | 70 |
| Forest protection, Western States | 71 |
| Forest protection, Alaska | 71 |
| General administration | 61, 76 |
| Lease and disposal of land and mineral resources | 61, 62, 64, 65 |
| Title, lease, and records service | 63 |
| Field examination and classification | 64 |
| Records improvement | 65 |
| Maintenance of access roads | 61, 76, 94 |
| Maintenance of physical facilities | 61, 75, 93 |
| Management of grazing lands | 55, 61, 65, 67 |
| Administration of grazing lands | 65 |
| Fire presuppression | 67 |
| Soil and moisture conservation | 61, 73, 74 |
| Soil and moisture conservation program by major practices | 74 |
| Soil and moisture conservation program by States for fiscal year 1965 | 74 |
| Budget estimate | 53 |
| Comparison of personal services and total program management of lands and resources (exclusive of fire suppression) | 53 |
| Itemization of estimate | 77 |
| Oregon and California grant lands | 113 |
| Analysis by activities | 113 |
| Construction and acquisition | 113, 114 |
| Access roads: | |
| Details of construction program, BLM lands: | |
| Fiscal year 1964 | 115 |
| Fiscal year 1965 program | 115 |
| Fiscal year 1965 | 115 |
| Status of appropriations for access roads: | |
| Fiscal years 1951 through 1963 | 114 |
| Fiscal year 1964 program | 114 |
| Recreation facilities | 115 |
| Forest development and protection | 115, 116, 117 |
| Forest development | 115 |
| Forest protection | 116 |
| Forest management | 117 |
| Recreation facilities | 117 |
| Operation and maintenance | 117 |
| Budget justification | 113 |
| Itemization of estimate | 117 |

Page

Land Management, Bureau of—Continued
Public lands, development roads, and trails (liquidation of contract authorization) 119
Analysis by activities 119
Budget estimate 119
Contract authorization and liquidation program 120
Itemization of estimate 121
Plans for fiscal year 1965 121
Rehabilitation measures required (table) 128, 129
Restorations resulting from rehabilitation measures 131, 132
Statement relating 1963 and 1964 appropriation to 1965 estimate 119
Status of cash authorization for liquidation of contract authorization 120
Summary of road program by States 120
Range improvements (receipt limitation) 118
Analysis by activities 118
Public lands 118
Farm Tenant Act lands 118
Itemization of estimate 118
Receipts by sources for fiscal years 1961, 1962, and 1963, and the estimated receipts for 1964 and 1965 (table) 51
Allocation of BLM receipts to States, fiscal year 1963 52
Statement showing effect of budget reductions set forth in House Document No. 240, March 9, 1964 1566
Statements of congressional witnesses:
Hon. Wayne Morse urged the committee to give consideration to a further acceleration of the soil and moisture conservation work of the Bureau of Land Management; also requested the committee to instruct the Bureau to make a comprehensive analysis of the weed control situation in Oregon 1367
Hon. Ernest Gruening stated his concern about the cadastral surveys in Alaska by the Bureau and urged the committee to request the Bureau to submit specific progress reports from time to time; urged that funds be provided the Bureau to initiate construction of fire control facilities 1394
Hon. Lee Metcalf spoke of budget items in Montana, especially the sanitation facilities in recreation areas and the soil and moisture work 1444
Hon. Clinton P. Anderson requested that funds be provided for soil and moisture conservation as the present funds are not sufficient to permit the Bureau to participate in the pilot conservation projects being planned 1452
The following statements were filed with the committee for inclusion in the record:
William E. Welsh, executive director, National Reclamation Association, urging that sufficient funds be granted for a satisfactory program of watershed management and control 1512
Kenneth Pomeroy, American Forestry Association, urging the rehabilitation of rundown ranges 1516
W. A. Williams, Jr., National Association of Soil and Water Conservation Districts, regarding insufficient funds for soil and moisture conservation work 1561
Minerals Exploration, Office of (beginning of hearings) 636
Acting Director's statement 639
Analysis by activities 637
Administrative and technical services 637
Financial assistance to participants in exploration projects 637
Budget justification 636, 637
Highlight statement 636
Itemization of estimate 639
Lead and zinc stabilization program 642
Acting Director's statement 643
Analysis by activities 642
Administration 642
Stabilization payments 642
Highlight statement 642
Itemization of estimate 643
Salaries and expenses 637
Summary of increases and decreases, 1965 637

Page
Mines, Bureau of (beginning of hearings) 479
Conservation and development of mineral resources 479, 482
Amendment requested 1589
Analysis by activities 483
Anthracite coal 483
Bituminous coal 483
Foreign mineral activities 483
Minerals and metals 483
Oceanographic research 483
Petroleum, natural gas and oil shale 483
Budget justification 479
Highlight statement 479
Summary of increases and decreases, 1965 482
Anthracite coal 489
Analysis by subactivity 489
Drainage control 491
Extraction research 489
Processing and utilization 490
Bituminous coal 483
Analysis by subactivity 483
Explosives research 488
Extraction research 483
Processing and utilization research 486
Resources investigation 488
Foreign mineral activities 503
Analysis by subactivity 503
Itemization of estimate 504
Minerals and metals 494
Analysis by subactivity 494
Extraction research 494
Processing research 496
Resources investigations 500
Utilization research 499
Oceanographic research 501, 513, 514
Analysis by subactivity 501
Petroleum, natural gas and oil shale 491
Analysis by subactivity 491
Extraction research 491
Oil shale research 493, 510–513
Processing and utilization research 492
Resources investigation 493
Construction 525
Bureau not requesting appropriation of additional money in fiscal year 1965 for construction. It proposes to use an unobligated balance for design and preparation of engineering plans and specifications in connection with proposed new construction in Bruceton, Pa., and Frederick, Md.; and to complete the construction and equipment of the engineering and physical science building at Bartlesville, Okla.
Analysis by activities 526
Laboratory facilities 526
Itemization of estimate 526
Director's statement 504
General administrative expenses 530, 531
Amendment requested 1592
Analysis by activities 530
Budget justification 530
Explanation of administrative provisions 532
Itemization of estimate 532
Purchase of passenger motor vehicles 532
Health and safety 515, 518
Amendment requested 1590
Analysis by activities 519
Inspections, investigations, and rescue work 519
Control of fires in coal deposits 519
Control of fires in coal deposits 520, 521

Mines, Bureau of (beginning of hearings)—Continued
Health and safety—Continued
Page
Health and safety research 521
Fine-coal float-dust explosion research 521
Mine ventilation research and investigations 522
Methane detection and monitoring research 522
Inspections, investigations, and rescue work 519
Safety education and training 520
Budget justification 515
Highlight statement 515
Itemization of estimate 523
Summary of increases and decreases, 1965 518
Helium fund 533
Authorization pursuant to Helium Act of 1960 533
Request for additional borrowing authority, pursuant to section 12(a) of the Helium Act Amendments of 1960 (Public Law 86-777) 533
Anticipated purchases of helium under contracts 535
Cliffside gasfield storage 536
Anticipated receipts from sale of helium 536
Estimate of income and expenditures, fiscal year 1965 536
Cost of operating helium plants and facilities 537
Financial summary 535
Statement showing effect of budget reductions set forth in House Document 240, March 9, 1964 1566
Statements of congressional witnesses:
Hon. Frank E. Moss stated he supports a high priority crash research program, particularly a practical methane monitor and for an effective means of combating danger to the life of men in the coal mines caused by deposits of extremely fine float dust. He stressed the program of mine ventilation research and investigation 1413
National Capital Planning Commission (beginning of hearings) 1179
Administration 1185
Administer financial and budget management, personnel, procurement, etc 1185
Service to special projects, such as urban renewal project contract studies, the Pennsylvania Avenue Advisory Council 1185
Budget request 1179
Budget justification 1180, 1197
National Capital Planning Commission 1180
National Capital Regional Planning Council 1180
Chairman's statement 1201
General introduction and role of Planning Commission 1183
Professional staff 1183
Expansion and reorganization 1183
Program objectives for 1965 1184
Professional program activities 1184
Office of the Director 1184
Legal services, Commission secretariat 1185
Administration 1185
Community relations 1185
Editorials and technical writing 1186
Program and performance 1181, 1194
Comprehensive Planning Division 1186
Coordinating metropolitan area planning 1181
District Planning Division 1191
Planning development of the National Capital 1181
Technical Services Division 1192
Urban Renewal Planning Division 1187, 1193
Federal Projects Planning Division 1190
Questions submitted by Hon. Hubert H. Humphrey concerning assistance given to the Federal Government on the location of new office space, and the role, if any, the Commission has in the planning of the District of Columbia public works program 1212, 1213

| | Page |
|---|---|
| National Capital Planning Commission—Continued | |
| National Capital Regional Planning Council | 1194 |
| Organization of the Regional Planning Council | 1194 |
| Relationships with other agencies in the National Capital region | 1194 |
| Sources of support for regional planning | 1194 |
| Long-range program objectives | 1195 |
| Program for fiscal year 1965 | 1195 |
| Year 2000 development policies | 1196 |
| General development plan preparation | 1196 |
| Action programs | 1196 |
| Planning research | 1196 |
| Review and coordination | 1197 |
| Statement of Chairman | 1225 |
| Land acquisition, National Capital Park, parkway, and playground system | 1217 |
| Amendment requested | 1610, 1611 |
| Allocation for land purchase at Center site | 1219 |
| National Cultural Center Act of 1958 | 1217 |
| Questions submitted by Hon. Milton R. Young concerning the policy of the Commission with respect to land acquisition for the Center | 1226 |
| Salaries and expenses | 1180 |
| Amendment requested | 1610, 1611 |
| Justification for current and proposed positions | 1197, 1198 |
| Transportation planning | 1192 |
| Transportation problem | 1210 |
| Cooperation with District Highway Department and National Capital Transportation Agency | 1211 |
| Rapid rail transit system | 1211 |
| 1985 comprehensive plan for the District of Columbia | 1211 |
| Publication of the plan | 1211 |
| Statement of congressional witness: | |
| Hon. A. S. Mike Monroney presented a request for funding in two allotments to the National Capital Planning Commission, which is a result of the authorization and supplemental appropriations which will be asked for the John F. Kennedy Center for the Performing Arts in order to speed up the program. | |
| The following statements were filed with the committee for inclusion in the record: | |
| Nathan Povich Mensh, concerning losses to be incurred in the relocation of businesses | 1483 |
| Henry L. Trepagnier, Jr., Historic Wax Museum, concerning relocation cost payments | 1485 |
| Giulio Gallo, concerning threat of vacating and relocating his business | 1487 |
| John R. Immer, Federation of Citizens Association of the District of Columbia, concerning the selection of a site closer to the center of the city for the John F. Kennedy Center for the Performing Arts | 1489 |
| James C. Wilkes, Jr., law firm of Wilkes & Artis, stating the Cultural Center's proposed site will not serve the public | 1496 |
| James Hodgson, Capitol Hill Restoration Society, regarding land acquisition for the Cultural Center | 1500 |
| Mrs. James H. Rowe, Jr., regarding location of the John F. Kennedy Center for the Performing Arts | 1562 |
| Lee P. Clagett, Arlington Memorial Co., concerning compensation to businessmen for moving costs incurred in connection with location of the John F. Kennedy Center for the Performing Arts | 1563 |
| National Capital Transportation Agency (beginning of hearings) | 1227 |
| Administrator's statement | 1232 |
| Analysis by object of expense | 1227 |
| Budget request | 1227 |
| Explanation of estimate | 1228 |
| Justification | 1227 |
| Highlight statement | 1228, 1233 |
| History of Agency appropriations | 1233 |

| | Page |
|---|---|
| National Capital Transportation Agency—Continued | |
| Land acquisition appropriation | 1243 |
| Rapid transit system plans | 1239 |
| Mass transit justification | 1236 |
| Transit legislation, Maryland | 1244 |
| Transit legislation, Virginia | 1244 |
| Traffic estimates | 1240 |
| Washington, D.C., traffic problems | 1243 |
| Traffic and financial planning | 1229 |
| Staff requirements and outline of work programs, fiscal year 1965 | 1242 |
| Office of Administrator/Deputy Administrator | 1230, 1242 |
| Office of Assistant Administrator and General Counsel | 1230, 1242 |
| Office of Public Information and Community Services | 1230, 1242 |
| Office of Administration | 1231, 1242 |
| Office of Finance | 1229, 1242 |
| Office of Engineering | 1230, 1243 |
| Summary of distribution by object of expense | 1231 |
| Statement of Miles L. Colean, Chairman, Joint Committee on Transportation for Metropolitan Washington, requesting approval of sufficient funds for the operation of the National Capital Transportation Agency | 1245 |
| Letter of February 18, 1964, from Hon. Basil L. Whitener, and enclosed resolution, urging the Agency to proceed with the rapid transit program | 1245 |
| National Gallery of Art (beginning of hearings) | 1313 |
| Accessions | 1317 |
| Library acquisitions | 1318 |
| Budget justification | 1313 |
| Curatorial services | 1317 |
| Education Office | 1318 |
| Extension service | 1318 |
| Highlight statement | 1313 |
| Maintenance of elevator and building repair | 1320 |
| Salaries and expenses | 1319 |
| Obligations by object classification | 1319 |
| Summary of increases and decreases, 1965 | 1314 |
| Explanation of increases and decreases | 1314 |
| Statement of Administrator of Gallery | 1313 |
| Status of program | 1316 |
| Changes in management requirement | 1316 |
| National Park Service (beginning of hearings) | 276 |
| Appropriation and activity | 278 |
| Construction | 278 |
| Construction (liquidation of contract authorization) | 278 |
| General administrative expenses | 278 |
| Maintenance and rehabilitation of physical facilities | 278 |
| Management and protection | 278 |
| Budget estimate | 278, 285 |
| Capital programs | 286 |
| Construction | 286 |
| Construction (liquidation of contract authorization) | 286 |
| Comparative summary of the 1964 appropriations with the 1965 budget | 278 |
| Director's statement | 282 |
| General fund receipts deposited to the credit of the U.S. Treasury during fiscal year 1963 and estimated for the fiscal years 1964–65 | 277 |
| Operating programs | 285 |
| General administrative expenses | 285 |
| Maintenance and rehabilitation of physical facilities | 285 |
| Management and protection | 285 |
| Summary of appropriations, revenues, and visitors, 1933–65 | 276, 277 |

| | Page |
|---|---|
| National Park Service—Continued | |
| Construction | 332 |
| Amendment requested | 1578 |
| Analysis by activity | 333 |
| Budget justification | 332, 355 |
| Acquisition of lands and water rights | 337 |
| Acquisition of lands | 337, 355 |
| Point Reyes National Seashore | 355 |
| Justification | 355 |
| Purpose and need for supplemental funds | 355 |
| Purchases made with first $7 million appropriated for Point Reyes land acquisition | 364 |
| Proposed land acquisition program, 1965 fiscal year | 339 |
| Status of land acquisition program | 358 |
| Status of lands in Civil War areas | 340 |
| Acquisition of water rights | 337 |
| Funds needed for acceleration of program, with requirements resulting from increased visitor use, additional developments, and establishment of new areas | 337 |
| Buildings, utilities, and other facilities | 334 |
| List of 1964 fiscal year projects rescheduled in the 1965 fiscal year | 362 |
| Northeast region | 363 |
| Southeast region | 362 |
| Reprograming | 361 |
| Southwest region | 363 |
| Western region | 363 |
| Midwest region | 363 |
| National Capital region | 363 |
| Construction (liquidation of contract authorization) | 365 |
| Analysis by activities | 365 |
| Budget justification | 365 |
| Itemization of estimate | 371 |
| Parkways | 366 |
| Major projects | 366, 367 |
| Minor projects | 368 |
| Roads and trails | 368 |
| Reconstruction | 368 |
| Paving | 368 |
| New work | 368 |
| Projects estimated to require $100,000 or more | 369, 370 |
| General administrative expenses | 374 |
| Amendment requested | 1580 |
| Administrative provisions | 380 |
| Amendment requested | 1582 |
| Budget justification | 380 |
| Purchase of motor vehicles | 380 |
| New additional passenger motor vehicles, 1965 budget | 381 |
| Analysis by activities | 374 |
| Departmental expenses | 374, 375 |
| Additional staffing in Washington office | 380 |
| Regional office expenses | 378, 379 |
| Analysis by activities | 378 |
| Additional staffing in regional offices | 380 |
| Director's statement | 380 |
| Itemization of estimate | 379 |
| Summary of increases, 1965 | 266 |
| Maintenance and rehabilitation of physical facilities | 325 |
| Amendment requested | 1576 |
| Analysis by activities | 325, 326 |
| Buildings, utilities, and other facilities | 325, 326 |
| Roads and trails | 325, 326 |
| Budget justification | 325 |
| Chart showing increase in appropriation | 328 |

National Park Service—Continued
Maintenance and rehabilitation of physical facilities—Continued Page
Director's statement 325
Itemization of estimate 331
Maintenance and operation of new and reconstructed facilities in pre-Mission 66 areas and more adequate maintenance and operation of facilities existing at commencement of Mission 66 328
New park areas for which funds are not now provided 327
Wage rate increases 326
Management and protection 288, 291
Amendment requested 1574
Analysis by activities 291, 292
Budget justification 288
Highlight statement 288
Itemization of estimate 311
Summary of increases, 1965 291
Concessions management 310
Analysis by subactivities 310
Audit 311
Management 310
Forestry and fire control 303
Analysis by subactivity 303
Fire protection service 303, 304
Forest fire suppression 303, 305
Forest management 303, 304
Tree preservation 303, 305
Management of park and other areas 292
Analysis by subactivity 292
Employees' compensation fund payments 303
Informational publications 301, 302, 303
National Capital parks 299, 300, 301
National parks, monuments, etc 292–299
Park and recreation programs 306
Analysis by subactivity 306
Archeological investigations and salvage 309, 318, 319, 320, 321
Historic American building survey 309, 322
Historic sites survey 310
Lands and water resource studies 308, 318
Resource planning 306, 317
Visitor services program 307
Soil and moisture conservation 305, 306
Preventing and correcting accelerated erosion, restoration of certain historical scenes and stabilization of areas receiving heavy recreational use 306
Statements by congressional witnesses:
Hon. Ernest Gruening's statement indicates support for the Glacier Bay National Monument in Alaska and the necessary facilities to make this area usable by the public 1395
Hon. Frank E. Moss stated he strongly supports the budget requests for programs involving the activities of the National Park Service within the State of Utah, including operation, maintenance, and construction programs, and funds for the development of the new Glen Canyon and Flaming Gorge recreation areas 1418
Hon. Lee Metcalf supports request for appropriation to construct an airport to East Glacier Park, Mont., which will be an invaluable asset in the fighting and prevention of fire, as it will provide landing facilities 1442
Statement filed with the committee for inclusion in the record:
C. R. Gutermuth, vice president, Wildlife Management Institute, urging funds to conduct the study that was recommended in the Leopold report 1550

Page
Oil and Gas, Office of (beginning of hearings) 410
Analysis by activities 412
Administration of oil import program 414
Coordination of oil and gas activities 412
Oil import appeals board 412
Budget justification 410
Itemization of estimate 417
Salaries and expenses 411
Statement of the Acting Director 417
Summary of increases and decreases 411
Administration of oil import program 411
Authority 414
Objectives 414
Program 415
Coordination of oil and gas activities 410, 412
Committee activities 413
Evaluation and forecasting—consolidated military, industrial, and civilian petroleum requirements 412
Functions 412
Program objectives 410
Oil import administration 414
Administration of program 414
Administrator's statement 419
Authorization: The Secretary of the Interior, pursuant to Presidential proclamation, established on March 13, 1959, an Oil Import Administration 414
Budget request 420
Itemization of estimate 420
Objectives 414
Oil import appeals 416
Program 415
Outdoor Recreation, Bureau of (beginning of hearings) 241
Analysis by activities 244
Coordination, education, and research 244, 247
Federal coordination 247, 248, 249, 252
Research and education 247, 249
Planning and cooperative services 244, 245
Cooperative services 246
Planning and survey 244, 245
Budget justification 241
Director's statement 250, 254
Itemization of estimate 250
Salaries and expenses 241, 244
Highlight statement 241
Summary of increases and decreases, 1965 244
Letters received from the following urging support for the full budget for the Bureau of Outdoor Recreation:
Hon. Clinton P. Anderson, dated February 17, 1964 274
Ralph J. Andrews, director, North Carolina Recreation Commission, Raleigh, N.C., dated February 21, 1964 274, 275
Lawrence Stuart, Director, State Park & Recreation Commission, Augusta, Maine, dated February 5, 1964 275
James S. Stevens, Jr., chairman, legislative committee, American Recreation Society, Washington, D.C., dated February 21, 1964 275, 276
Austin H. Wilkins, chairman, legislative committee, and forest commissioner of Maine, National Association of State Foresters, Augusta, Maine, dated February 10, 1964 275
Statements of congressional witnesses:
Hon. Wayne Morse stated it is imperative that immediate consideration be given to providing funds for the planning and construction of sites, facilities, and access on lands having important recreational values 1368
Hon. Leverett Saltonstall expressed concern that the budget contains no additional moneys for land acquisitions for the Cape Cod National Seashore 1438

Outdoor Recreation, Bureau of—Continued
Statements of congressional witnesses—Continued
Page
Hon. Edward M. Kennedy concurred with Senator Saltonstall concerning funds for the Cape Cod National Seashore 1438
Hon. Lee Metcalf urged the committee to act favorably on the budget requested for planning and cooperative services, for coordination, education, and research by the Bureau of Outdoor Recreation 1441
Hon. Thomas J. McIntyre expressed his support for additional funds requested by the Bureau of Outdoor Recreation, which will be helpful to the State of New Hampshire as it has embarked upon a most ambitious State planning project 1449
The following statements were filed with the committee for inclusion in the record:
Dr. Jackson M. Anderson, assistant executive secretary, American Association for Health, Physical Education, and Recreation, supporting the Outdoor Recreation budget 1538
Philip A. Douglas, executive secretary, Sport Fishing Institute, urging adequate capital for the Bureau of Outdoor Recreation 1548
C. R. Gutermuth, vice president, Wildlife Management Institute, supports funds for the orderly expansion of the Bureau's program 1550
Public Health Service, Department of Health, Education, and Welfare (beginning of hearings) 1246
Indian health activities 1248
Analysis by activities 1249
Administration 1248
Contract medical care 1248, 1249
Field health services 1248
Hospital health services 1248, 1249
Budget justification 1246
Highlight statement 1246
Statement of Chief, Division of Indian Health 1262
Summary of increases and decreases, 1965 1248
Administration 1261
Itemization of estimate 1261
Passenger motor vehicles, authorization for purchase 1262
Program and location 1262
Summary of positions and average employment 1262
Contract medical care 1252, 1254
Distribution of funds 1254
Summary of positions and average employment 1262
Field health services 1255, 1260
Analysis by subactivity 1255
Dental 1255, 1256
Field medical services 1255, 1258
Health education 1255, 1258
Public health nursing 1255, 1257
Sanitation 1255
Summary of positions and average employment 1262
Hospital health services 1249
Employee/patient ratios and average daily patient loads, by type of hospital 1251
Itemization of estimate 1252
Summary of positions and average employment 1262
Workload data 1251
Construction of Indian health facilities 1265
Analysis by activities 1273
Hospitals and clinics 1272, 1273, 1274
Personnel quarters 1273, 1279
Alterations 1273, 1280
Community hospitals serving Indians and non-Indians 1273, 1275
Construction of Indian sanitation facilities 1273, 1286
Sanitation facilities projects 1288, 1289
Analysis of continuing projects 1290
Budget justification 1272
Highlight statement 1273
Itemization of estimate 1291

Public Health Service, etc.—Con.
Page
Indian health activities—Continued
Statement of Chief, Division of Indian Health 1262
Questions submitted by Hon. Karl E. Mundt 1304, 1305, 1306
Statements of congressional witnesses:
Hon. Lee Metcalf stated his interest in Indian health, sanitation facilities, irrigation construction, education, and road construction 1443
Hon. Quentin N. Burdick requested financial support for the construction of a hospital at Belcourt, N. Dak., to serve the people on Turtle Mountain Indian Reservation, as their health status is very poor due to poverty 1451
Saline Water, Office of (beginning of hearings) 1123
Administrative expense increase 1146
Amendments requested (2) 1125
Analysis by activities 1125, 1126
Administration and coordination 1125, 1135
Contracts and grants 1125
Research 1125
Processes 1125
Feasibility studies 1125
Federal laboratories 1125, 1126
Processes 1125, 1126
Budget justification 1123
Director's statement 1132, 1133
Highlight statement 1123
Itemization of estimate 1132
Salaries and expenses 1125
Amendments requested (2) 1597
Summary of increases and decreases, 1965 1125
Demonstration plant program 1137
Authorized by Public Law 85-883 1137
Budget justification 1137
Administration 1137
Major process improvement and plant change 1137
Operation and maintenance 1137
Plants in operation at close of fiscal year 1964 1124, 1137
Freeport, Tex 1124, 1137
Roswell, N. Mex 1124, 1137
San Diego, Calif 1124, 1137, 1154, 1155
Webster, S. Dak 1124, 1137
Construction, operation, and maintenance 1152, 1153
Amendments requested (2) 1599
Analysis by activity 1153
Budget justification 1153
Itemization of estimate 1154
Letter of March 4, 1964, from Assistant Secretary of the Interior requesting that the operation and maintenance estimate not be reduced 1156, 1157
Guantanamo plant—transfer of portion of the San Diego plant to the Guantanamo Bay Naval Base 1154, 1155
Wrightsville Beach, N.C., test facility 1147
Summary of increases and decreases, 1965 1153
Research and development program 1126
Applied research 1127
Distillation processes 1128
Freezing processes 1128, 1129
Membrane and related processes 1128, 1129
Humidification processes 1128, 1129
Other processes 1128, 1129
Other applied research and development 1128, 1130
Pilot plants test facilities 1128, 1130

Saline Water, Office of—Continued
Research and development program—Continued Page
Basic research 1126, 1136
Properties of water and solutions 1126, 1127
Separation processes 1126, 1127
Interactions at boundaries of water systems 1126, 1127
Properties of salts, brine, and byproducts 1126, 1127
Economics 1126, 1127
Contracts and administration 1131
Engineering and feasibility studies 1130
Organization expense (administration and coordination) 1131
The following statements were filed with the committee for inclusion in the record:
William E. Welsh, executive director, National Reclamation Association, urging continuation of saline water research at an accelerated rate 1512
Alex Radin, American Public Power Association, concerning funds for the research and development program 1552
Secretary, Office of the (beginning of hearings) 1069
Administrative Assistant Secretary's statement 1069
Analysis by activity 1070
Administrative management services 1070
Departmental direction 1070
General services 1070
Program direction and coordination 1070
Analysis of increases 1071
Administrative management services 1071
Administrative Assistant Secretary 1071
Correspondence control office 1071, 1078
Division of Budget 1071, 1077
Division of Management Research 1071, 1078
Division of Personnel Management 1071
Office of Survey and Review 1071, 1076
Office of Management Operations 1071, 1076
Departmental direction 1071
Office of the Secretary 1071, 1072
Office of the Under Secretary 1071, 1072
Division of Information 1071, 1072
General services 1071, 1079
Program direction and coordination 1071, 1073
Assistant Secretary for Fish and Wildlife 1071, 1074
Assistant Secretary for Mineral Resources 1071, 1074
Assistant Secretary for Public Land Management 1071, 1074
Assistant Secretary for Water and Power 1071, 1073
Resources program staff 1071, 1074
Resources program staff 1074
Area redevelopment 1075
Field coordination—River basin planning 1074
International activities 1075
Program planning 1075
Resource economics 1075
Budget increases 1083
Budget justification 1069
Highlight statement 1082
Itemization of estimate 1079
Obligations by activities and objects, fiscal years 1964 and 1965 1080, 1081
Personnel 1083, 1084
Office of the Secretary 1083
Office of the Assistant Secretary for Mineral Resources 1084
Office of Management Operations 1084
Salaries and expenses, Office of the Secretary 1079
Amendment requested 1600
Summary of increases and decreases, 1965 1070

| | Page |
|---|---|
| Smithsonian Institution (beginning of hearings) | 1321 |
| Budget request | 1321 |
| Comparative summary of the 1964 appropriation with the 1965 estimates | 1326 |
| Museum exhibitions (including art) | 1326 |
| Museum of History and Technology | 1326, 1327 |
| Museum of Natural History | 1326, 1327 |
| National Art Museum | 1326 |
| National Armed Forces Museum Advisory Board | 1326 |
| National Collection of Fine Arts | 1326, 1327 |
| National Portrait Gallery | 1326, 1327 |
| Scientific research and exchange of scientific information | 1326 |
| Astrophysical Observatory | 1326, 1327 |
| Bureau of American Ethnology | 1326 |
| Canal Zone biological area | 1326, 1328 |
| International Exchange Service | 1326, 1328 |
| Museum of Natural History | 1326, 1328 |
| Museum of History and Technology | 1326, 1328 |
| Buildings Management Department | 1326, 1329 |
| Museum of History and Technology Building | 1326 |
| Natural History Building | 1326 |
| Smithsonian Building | 1326 |
| Arts and Industries Building | 1326 |
| All other buildings | 1328 |
| Rehabilitation of buildings | 1326 |
| General administration | 1326, 1329 |
| Management | 1326 |
| Administrative services | 1326 |
| Planning and construction | 1334 |
| Planning | 1336 |
| Detailed plans and designs for fiscal year 1966 | 1336 |
| Smithsonian Institution expenses | 1336 |
| Advance planning and consultation for fiscal year 1967 | 1336 |
| Construction | 1337 |
| Exhibits | 1337 |
| Parking area | 1337 |
| Sewerage system | 1337 |
| Utilities | 1337 |
| Civil Service Building to be remodeled for use by Smithsonian Art and Portrait Galleries | 1334 |
| Bids for remodeling | 1335 |
| National Air Museum Building | 1337 |
| Plans and specifications | 1337 |
| Justification | 1338 |
| National Zoological Park | 1335 |
| Constructing, remodeling, and equipping the buildings and other facilities | 1335 |
| Justification | 1336 |
| 1965 program for the zoo | 1337 |
| Amendment requested | 1609 |
| Rehabilitation projects, fiscal year 1965 | 1323 |
| Museum of Natural History | 1323 |
| Arts and Industries Building | 1323 |
| Smithsonian Building | 1323 |
| National Air and Space Building | 1323 |
| Freer Gallery of Art Building | 1323 |
| Silver Hill facility | 1323 |
| Schedule of renovation of exhibits | 1322 |
| Salaries and expenses | 1324, 1329 |
| Amendment requested | 1608 |
| Budget justification | 1324 |
| Statement of Dr. S. Dillon Ripley, Secretary of the Smithsonian Institute | 1330 |

Page

Solicitor, Office of (beginning of hearings) 1085
Analysis by activities 1086
Budget justification 1086
Steadily increasing demand for legal services due to additional scope and type of transactions handled by the Department of the Interior 1087
Office of Saline Water's research and development contracts 1087
Bureau of Reclamation's development of land and water resources, with related legal demands 1087
Bureau of Indian Affairs—enrollment appeals by Indians in connection with judgments recovered against the United States; legislative and treaty proposals 1087
Pending land and mineral appeals 1087
Bureau of Outdoor Recreation—broadened legal problems 1087
Legislation for the rehabilitation of Guam 1087
Office of Oil and Gas requires major additional legal services 1088
Bureau of Mines—substantial increase in legal services required in connection with helium 1087
Congressional proposals for review of public land laws 1088
Bonneville Power Administration—legal services in connection with construction and procurement contracting 1088
Southwestern Power Administration has increased construction and procurement contracting 1088
Salaries and expenses 1086
Statement of Solicitor 1085
Statement of Hon. Gale W. McGee concerning establishment of a State office in Wyoming 1102
Summary of increases and decreases, 1965 1086
Territories, Office of (beginning of hearings) 539
Administration of territories 539, 540, 562
Amendment requested 1583
Analysis by activities 541
Budget justification 562, 563
Director's statement 562
General administration 561
Washington Office, estimated expenditures 562
Contractual services and supplies 562
Equipment 562
Personnel compensation and benefits 562
Highlight statement 539
Itemization of estimate 562
Summary of increases and decreases, 1965 540
American Samoa 540, 545
Appropriations and grants 434
Direct appropriations 545
Chief justice and high court 545
Governor's office 545
Legislative expense 434
Grants 546, 551
Economic and industrial development 545, 555
Department of Agriculture 545, 555
Local government department 545, 555
Distribution of expenses 555
General administration 545, 557
Audit office 545, 557
Administrative services department 545, 558
Executive office operations 545, 558
Personnel office 545, 558
Distribution of expenses of the activities 559
Health, education, and welfare 545, 551
Civil defense 553
Department of education 552
Department of medical services 552
Local judicial 552
Public defender 552
Public safety and legal affairs 552
Distribution of expenses 554

Territories, Office of—Continued
American Samoa—Continued
Appropriations and grants—Continued
Grants—Continued Page
Operations, maintenance, and transportation services 545, 556
Communications 545, 556
Port administration 545, 557
Public works department 545, 556
Distribution of the expenses of the activities 557
Budget justification 539
Consolidated activities summary nonconstruction and construction items, fiscal year 1965 546
Chief justice and high court 546, 550
Governor's office 546, 549
Legislative expense 546, 550
Grants 546, 551
Summary, fiscal year 1965 547
Construction program 559
Electrical system 559
General supply revolving fund 561
Harbor development 560
Maintenance shop facility 560
Main dock dredging 560
Marine railway 560
Motor-pool facility 560
Sewerage and sanitation development 559
Small boat landing 560
Telephone system 560
Water development 559
Governor's statement 584
Statement of revenues by sources 548
Department of agriculture 548
Department of administrative services 548
Communications 548
Department of education: Miscellaneous 548
Department of medical services 548
Department of public works 548
Department of port administration 548
Miscellaneous 548
The Bank of American Samoa, Pagopago, American Samoa 561
Canton Island administration 561
Contractual services and supplies 561
Personnel compensation and benefits 561
Guam 541
Governor's office 541, 542
Legislative expense 541, 542
Loans 541, 542
Grants 541, 542
Estimate by projects 542
Air terminal 542
College of Guam 542, 543
Commercial port of Guam 542, 543
Power production and distribution 542, 544
Sewer system and drainage 542
Water resources and distribution 542, 544
Governor's statement 572
Rehabilitation program 542, 564, 572
(1) To replace public facilities destroyed as a result of Typhoon Karen in November 1962 542, 564
(2) To replace wornout World War II temporary public facilities with modern and efficient construction whereby Guam may develop its social and economic potential to a greater level of self-sufficiency 542, 564
Statement of speaker, Seventh Guam Legislature, in support of requests for appropriations submitted under authority of Public Law 88-170, November 4, 1963, Guam rehabilitation bill, and attaching Resolution No. 305 of the Seventh Guam Legislature, 1964 (second) regular session; also 1964 supplemental Federal budget (Guam); 1965 regular Federal budget (Guam) 580, 581, 582, 583

Territories, Office of—Continued Page
Trust Territory of the Pacific Islands 563, 602
Analysis by activities 603
High Commissioner's Office 603
Judiciary 603
Grants 603
Budget estimate 603
Consolidated activities breakdown of 1965 estimates between non-construction and construction items 604
Construction 563, 606, 620
Education program 563
Hospital at Truk 563
Housing, airfield, power and water, road, communications, and other facilities 563
Comparison of construction by categories (1963, 1964, 1965 fiscal years) 621
Construction program 620
Summary of construction by districts (1965 fiscal year) 622
Direct appropriation 604, 605
High Commissioner's Office 604, 605
Judiciary 604, 605
General Government 617
Grants 604, 606
Program activities 604, 606
Medical services 604, 606
Education 604, 606
Protection to persons and property 604, 610
Resources management and development 604, 611, 612
Operations, maintenance, transportation, and communications 604
General Government 604, 617
Supply stock revolving fund 604, 628
Construction 604
Highlight statement 602
Itemization of estimate 628
Land use and occupancy funds 627
Maintenance and operation of physical facilities 615
Statement of estimated revenue by sources 605
Statement of the High Commissioner 628
Summary by activity 604
Summary of increases 1965 603
Transportation and communication services 616
Trust funds 625
Angaur Mining Trust Fund 625, 626
Angaur Scholarship Fund 625, 626
Copra Stabilization Fund 625
Kili Trust Fund 625, 626
Saipan Trust Fund 627
Ujeland Trust Fund 625, 626
Virgin Islands Corporation (beginning of hearings) 391
Analysis by activities 392
Contributions: Appropriation, 1963, transferred from "Internal Revenue Collections for Virgin Islands" 392
Highlight statement 391
Justification: No funds are being requested during the coming year. The Corporation does request a limitation on administrative expenses of $156,000 for the next fiscal year, which is a decrease under the authorization of the current law 391
Loans to operating fund 393
Revolving funds 392
Statement of the Assistant Director of the Office of Territories 395–402
Summary of activities and plans of the Corporation 395
Expiration of the Virgin Islands Corporation on June 30, 1969 396
Statistics for 1965 budget estimates 394
Loan program 394
Power program 394
Sugar program 394
Water program 394

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